

Name: \_\_\_\_\_

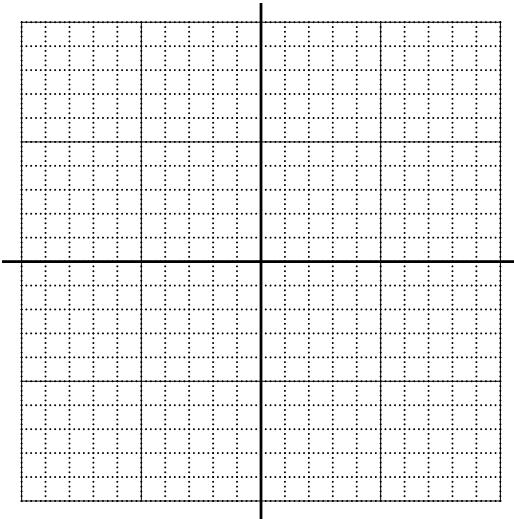
Date: \_\_\_\_\_

### PCW\_09\_29: Graph Parent Translations (version 1)

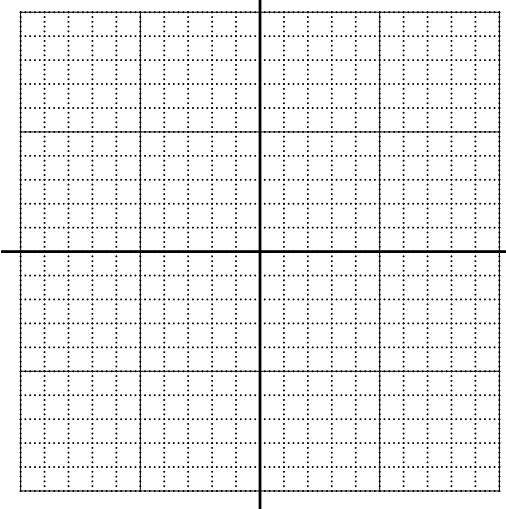
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

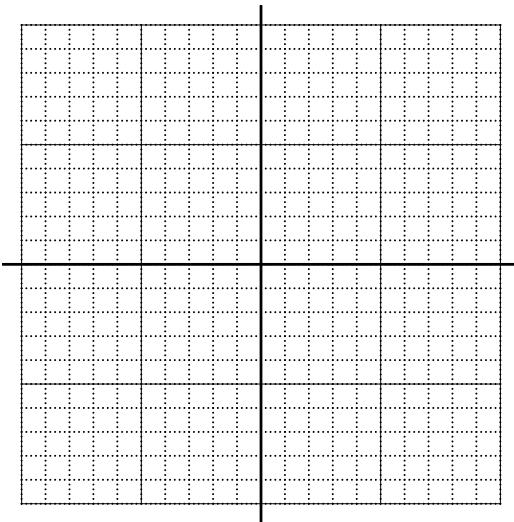
$$y = |x - 2| - 3$$



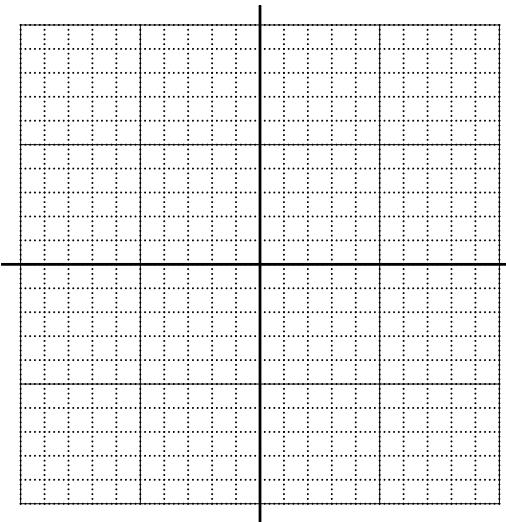
$$y = \frac{1}{x+5} + 1$$



$$y = \log_2(x - 2) - 3$$

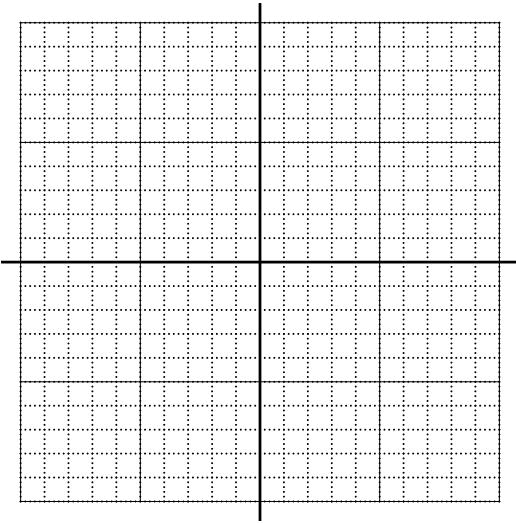


$$y = (x - 5)^2 - 1$$

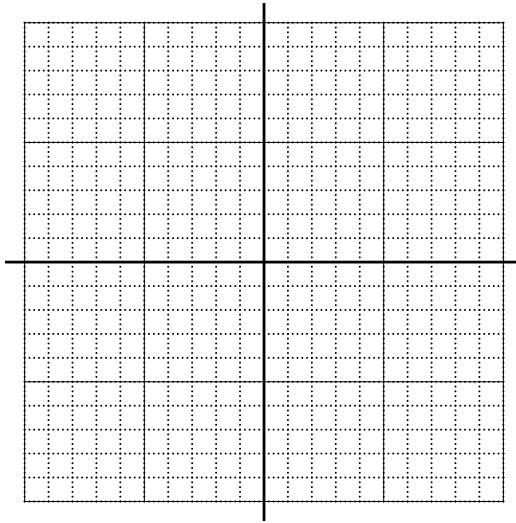


## PCW\_09\_29: Graph Parent Translations (version 1)

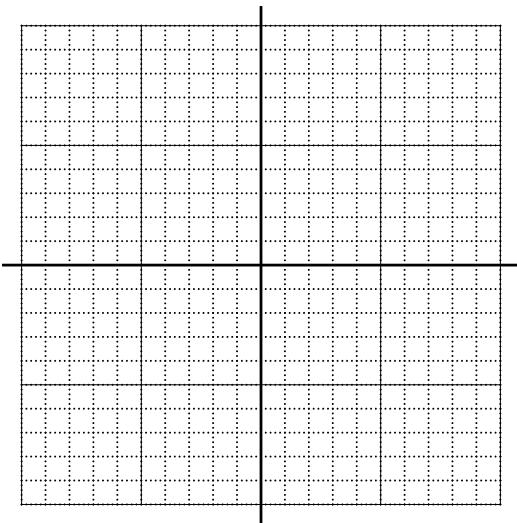
$$y = \sqrt[3]{x+5} + 1$$



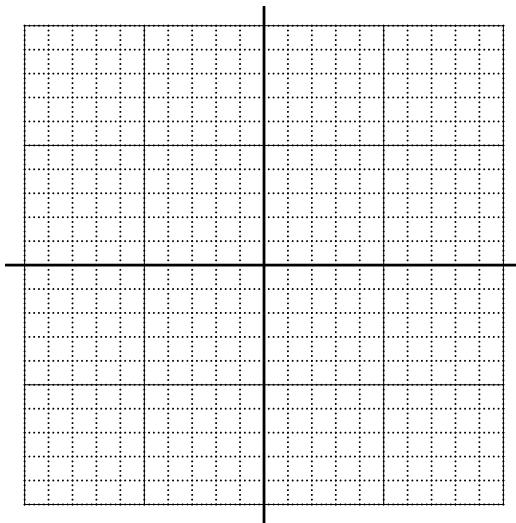
$$y = (x-1)^3 - 4$$



$$y = 2^{x+4} + 3$$



$$y = \sqrt{x-2} + 5$$



Name: \_\_\_\_\_

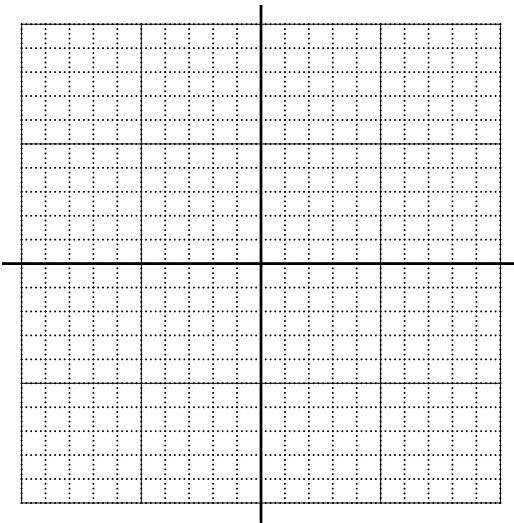
Date: \_\_\_\_\_

## PCW\_09\_29: Graph Parent Translations (version 2)

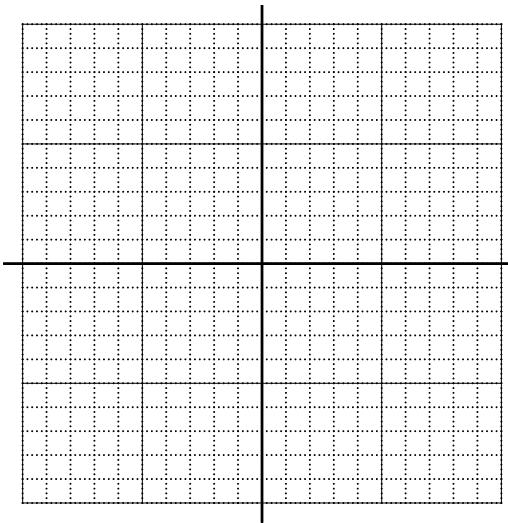
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

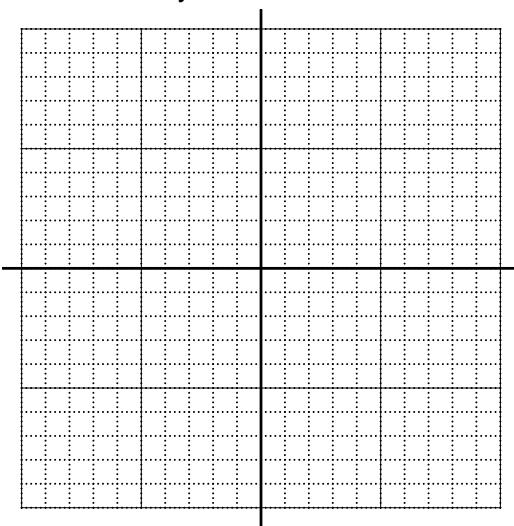
$$y = \sqrt{x-1} - 2$$



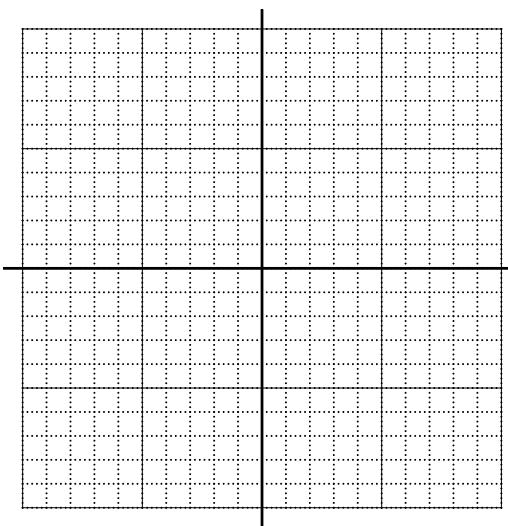
$$y = 2^{x+3} + 2$$



$$y = \sqrt[3]{x-2} - 3$$

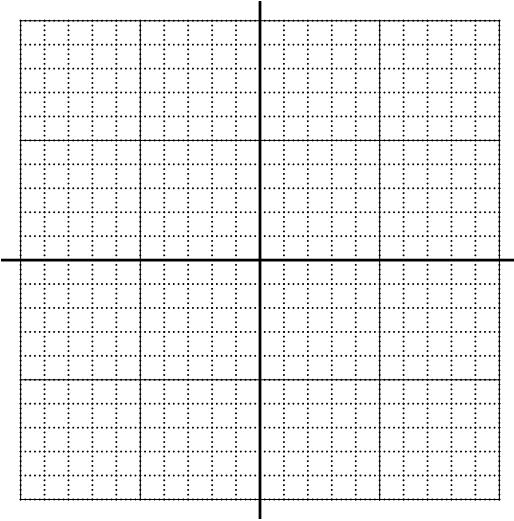


$$y = |x-1| + 2$$

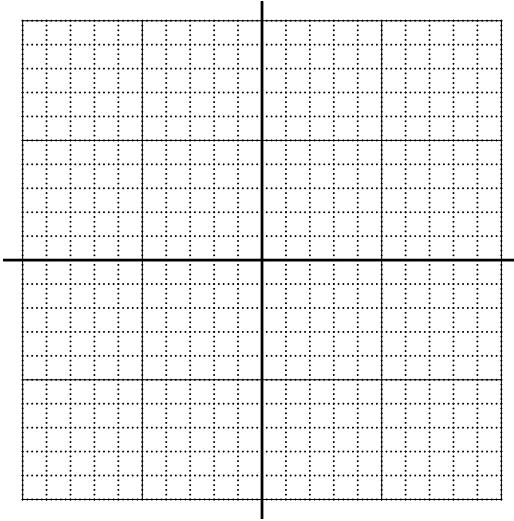


## PCW\_09\_29: Graph Parent Translations (version 2)

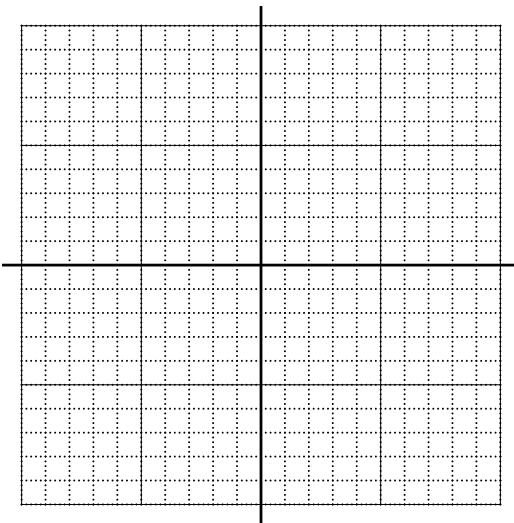
$$y = \log_2(x + 4) - 3$$



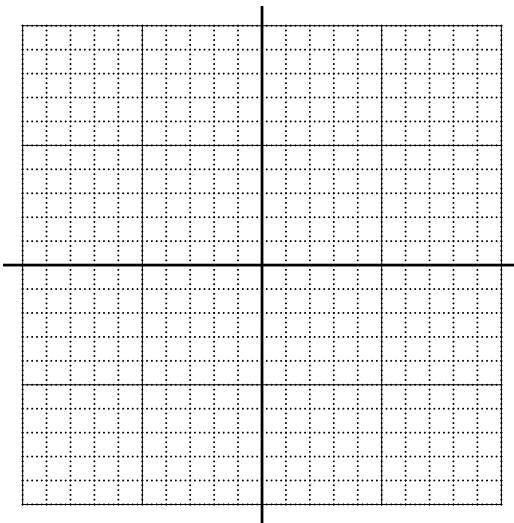
$$y = \frac{1}{x+5} + 2$$



$$y = (x - 3)^2 + 1$$



$$y = (x + 5)^3 + 1$$



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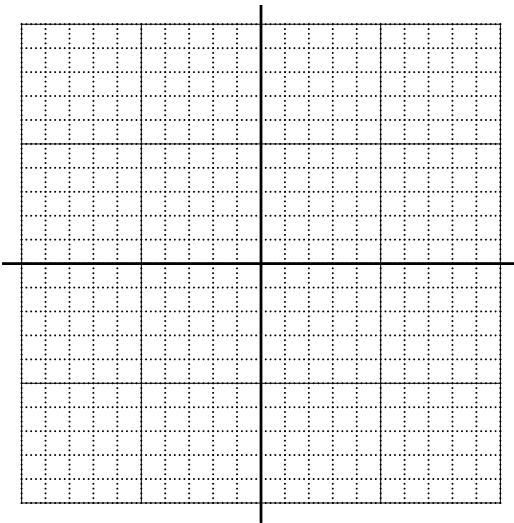
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### PCW\_09\_29: Graph Parent Translations (version 3)

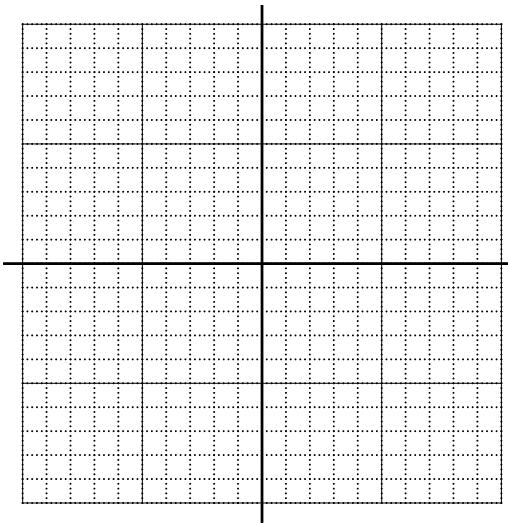
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

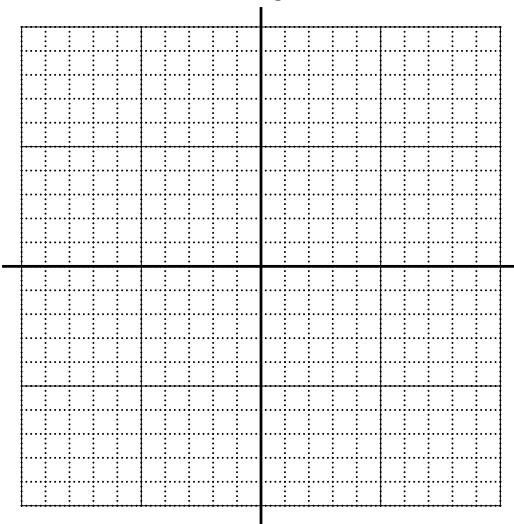
$$y = \sqrt{x-4} + 2$$



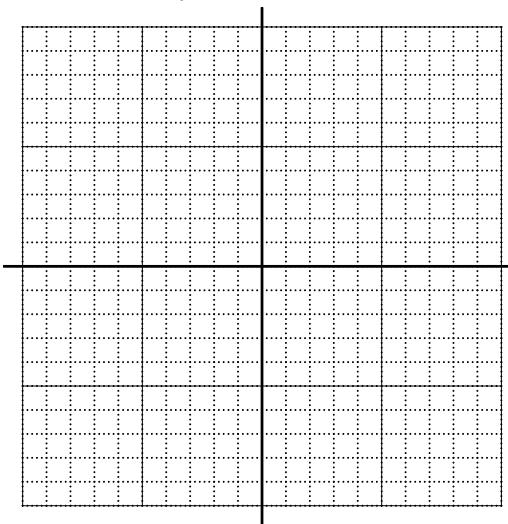
$$y = (x-5)^2 + 2$$



$$y = \frac{1}{x+5} - 1$$

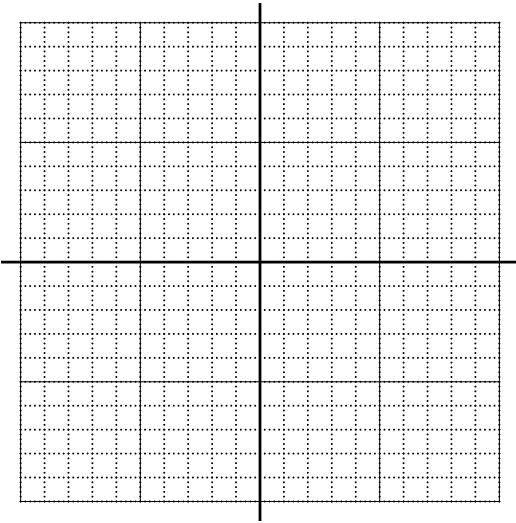


$$y = \sqrt[3]{x+1} + 5$$

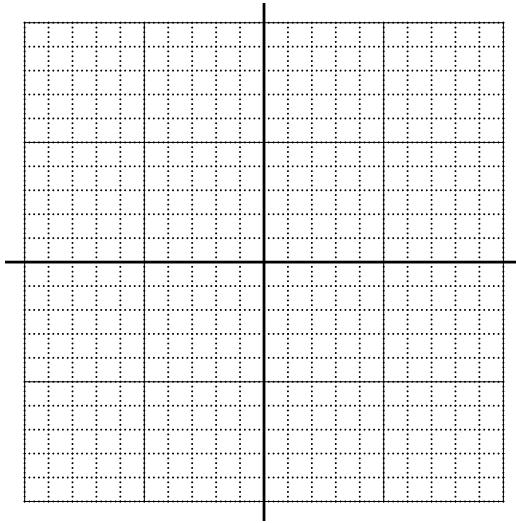


## PCW\_09\_29: Graph Parent Translations (version 3)

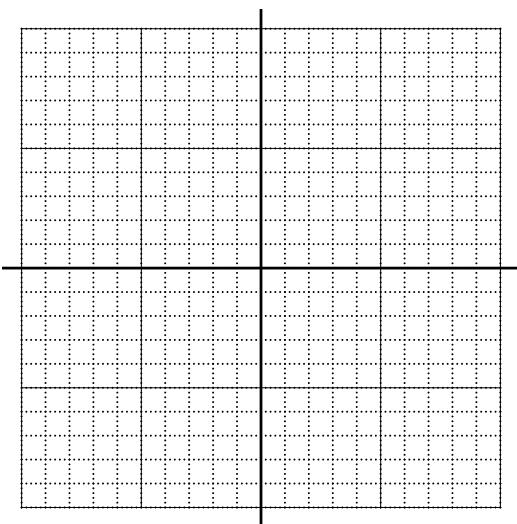
$$y = 2^{x-2} + 4$$



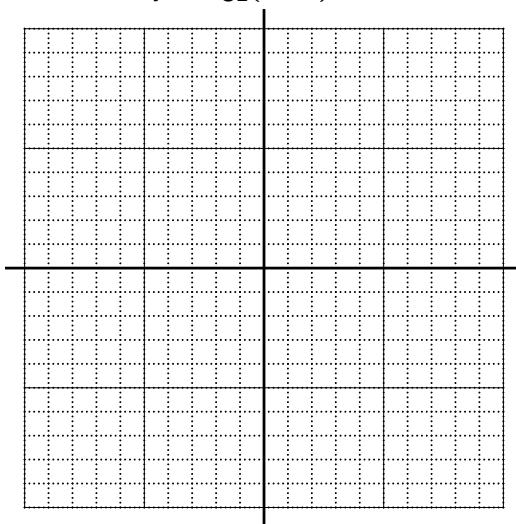
$$y = (x+4)^3 + 3$$



$$y = |x - 2| - 3$$



$$y = \log_2(x - 3) - 2$$



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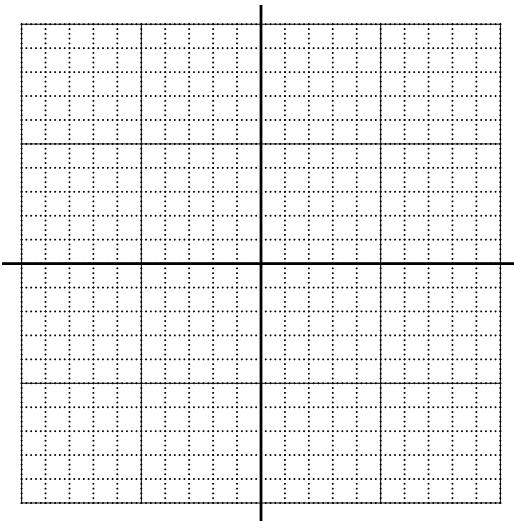
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### PCW\_09\_29: Graph Parent Translations (version 4)

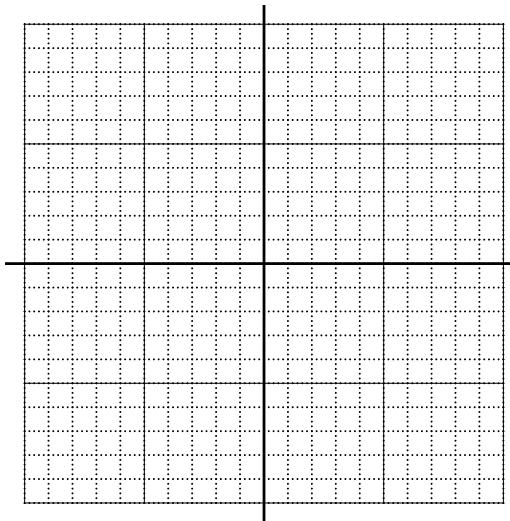
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

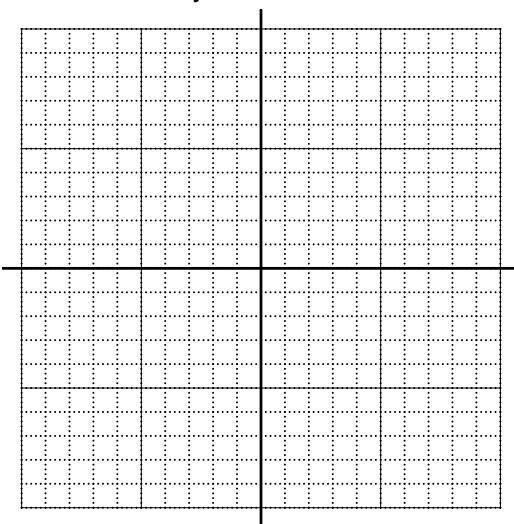
$$y = \log_2(x+2) + 3$$



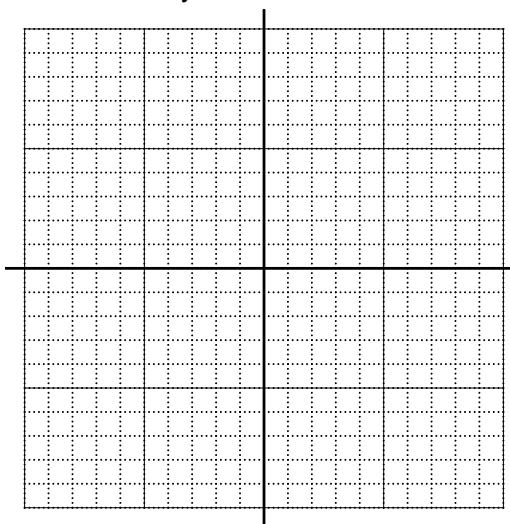
$$y = (x-2)^3 + 4$$



$$y = 2^{x-3} - 5$$

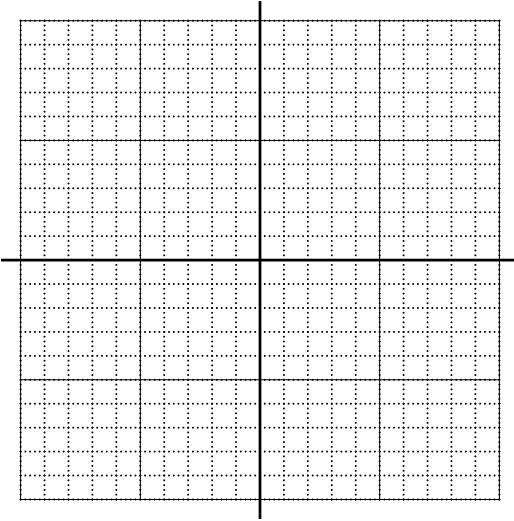


$$y = \sqrt[3]{x+5} + 1$$

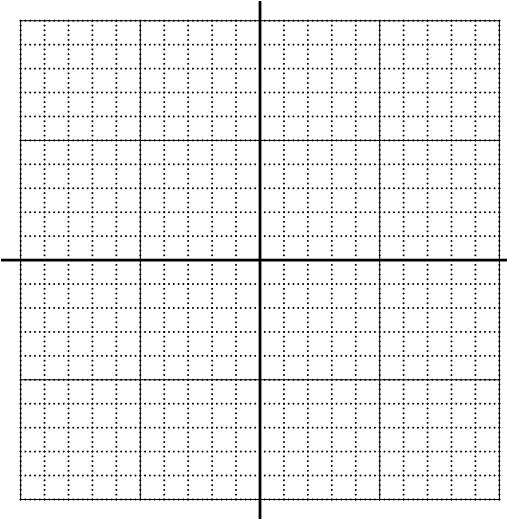


PCW\_09\_29: Graph Parent Translations (version 4)

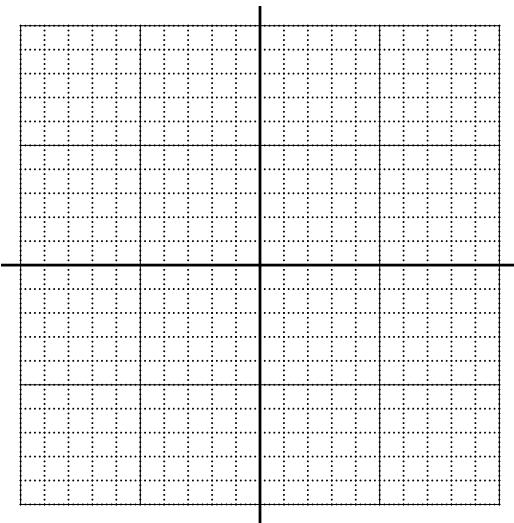
$$y = \sqrt{x - 4} - 1$$



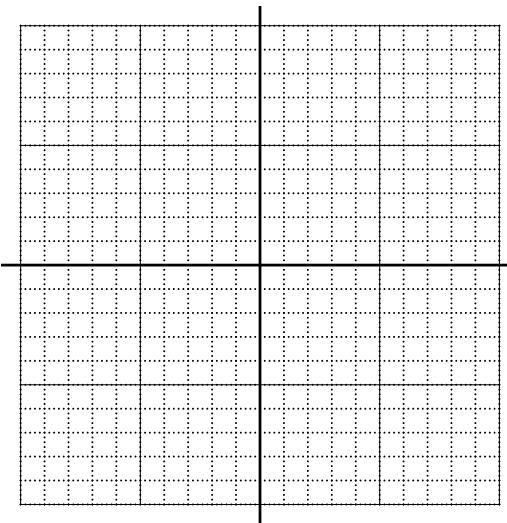
$$y = \frac{1}{x + 5} - 4$$



$$y = (x + 3)^2 - 4$$



$$y = |x + 4| + 1$$



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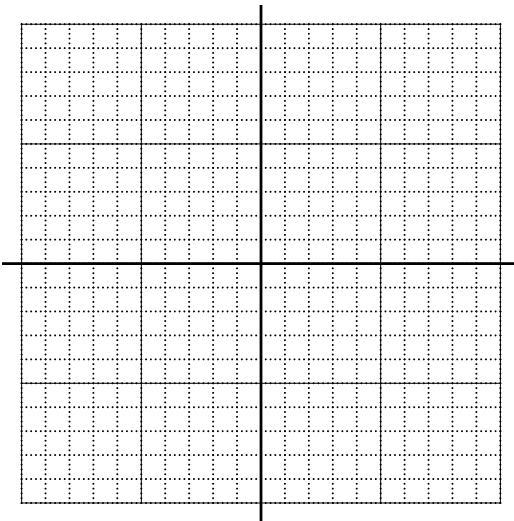
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### PCW\_09\_29: Graph Parent Translations (version 5)

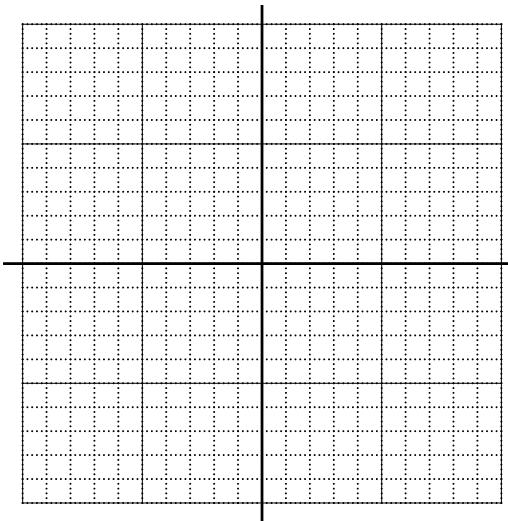
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

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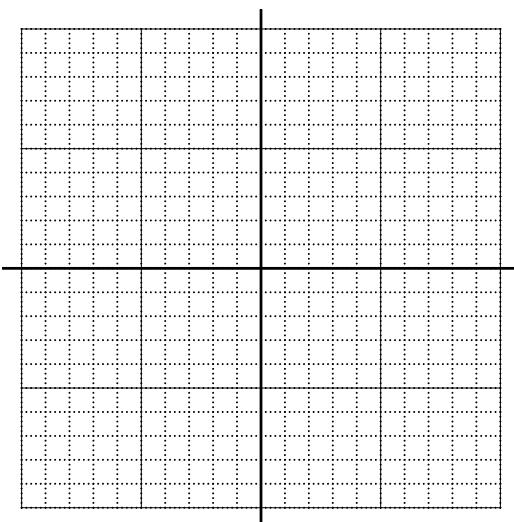
$$y = (x+3)^2 + 5$$



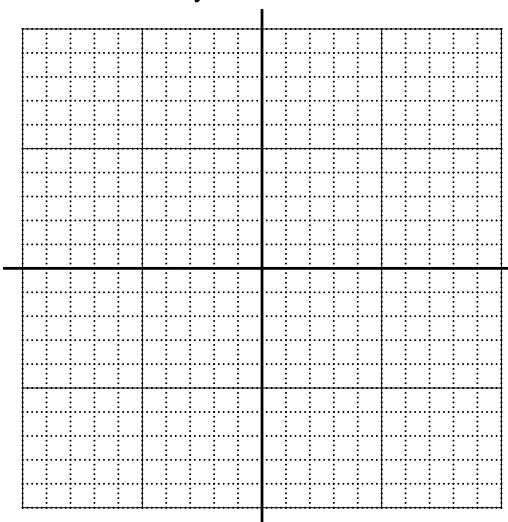
$$y = (x+5)^3 + 4$$



$$y = |x - 5| - 4$$

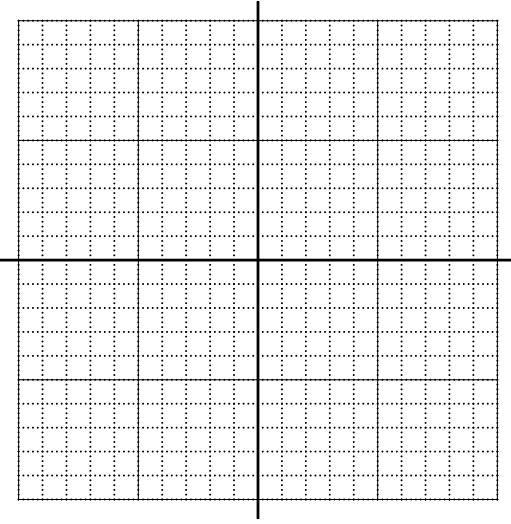


$$y = 2^{x+4} - 3$$

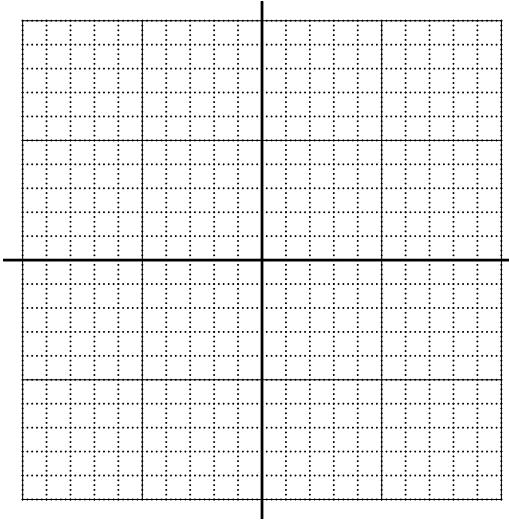


## PCW\_09\_29: Graph Parent Translations (version 5)

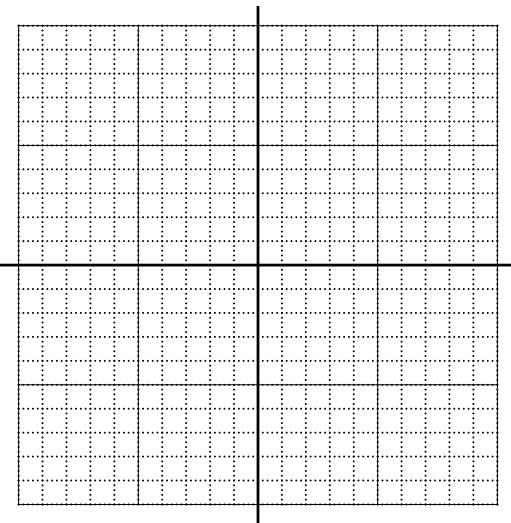
$$y = \sqrt[3]{x - 2} - 5$$



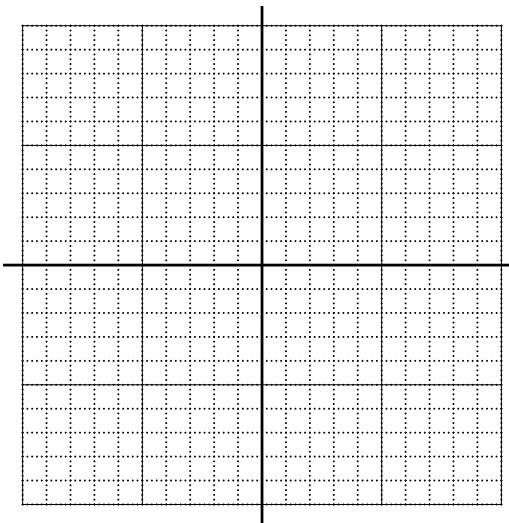
$$y = \frac{1}{x + 2} + 5$$



$$y = \sqrt{x - 5} - 3$$



$$y = \log_2(x + 2) - 4$$



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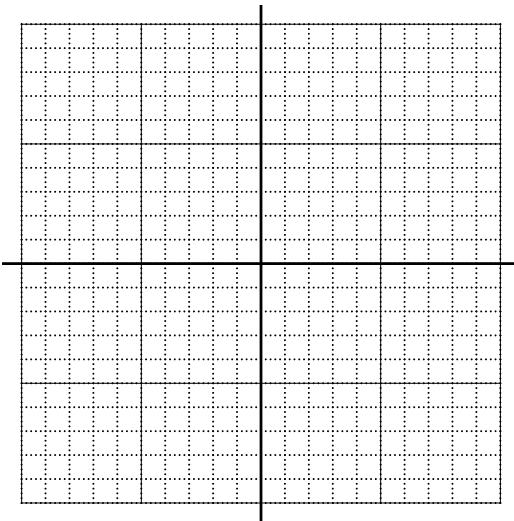
Date: \_\_\_\_\_

## PCW\_09\_29: Graph Parent Translations (version 6)

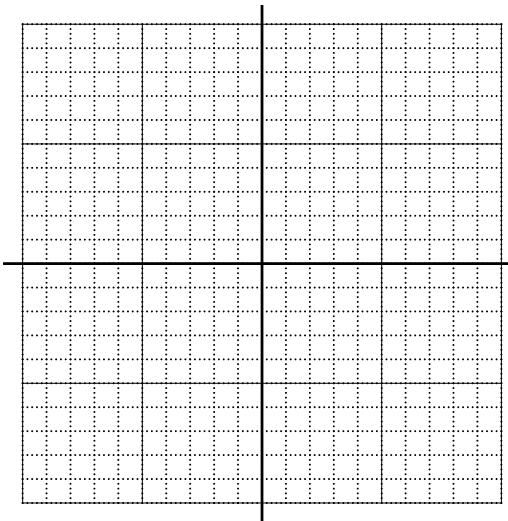
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

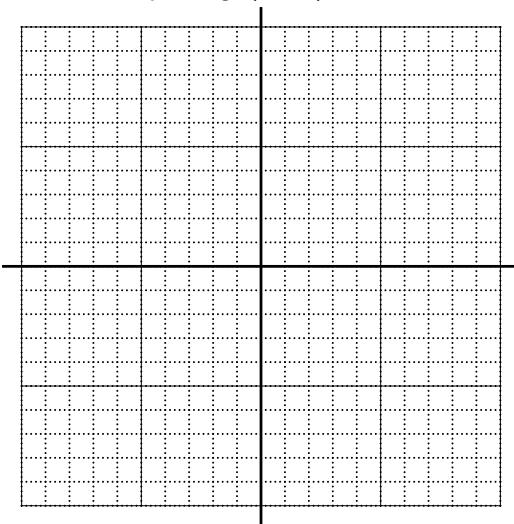
$$y = \sqrt{x+2} + 5$$



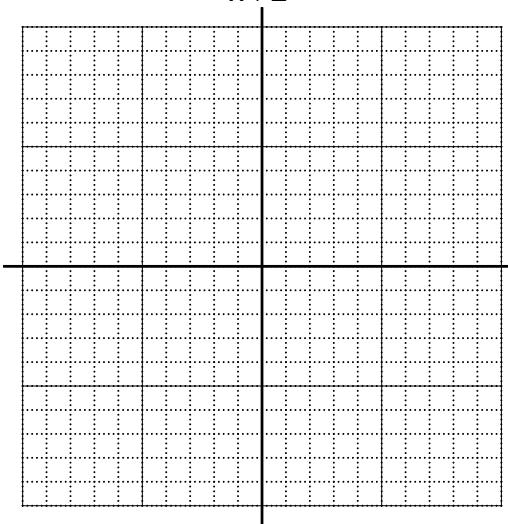
$$y = (x-3)^2 + 5$$



$$y = \log_2(x-1) - 2$$

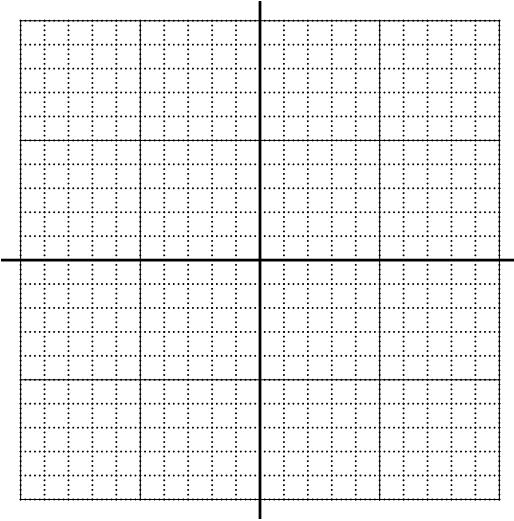


$$y = \frac{1}{x+2} - 3$$

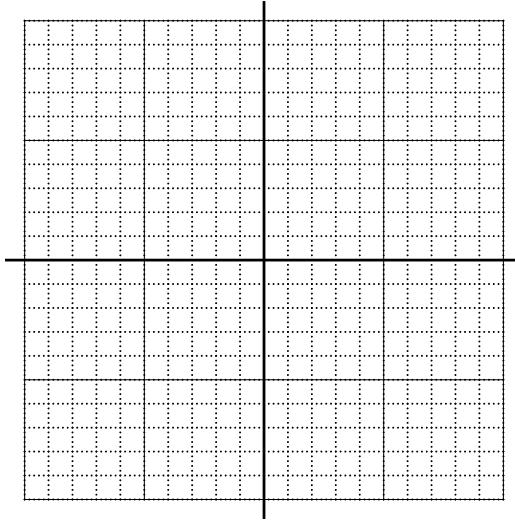


## PCW\_09\_29: Graph Parent Translations (version 6)

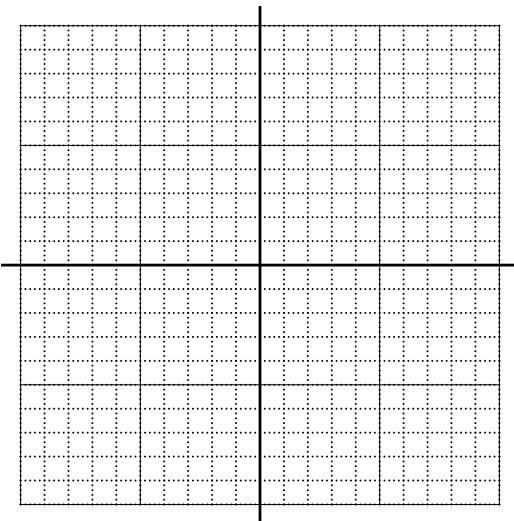
$$y = \sqrt[3]{x+2} + 4$$



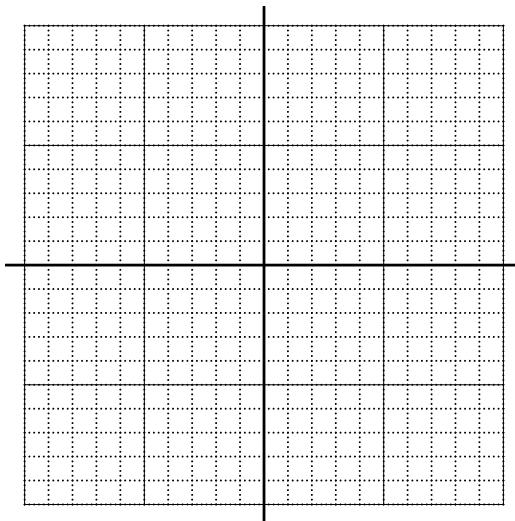
$$y = (x-3)^3 + 1$$



$$y = |x - 4| + 2$$



$$y = 2^{x-2} - 1$$



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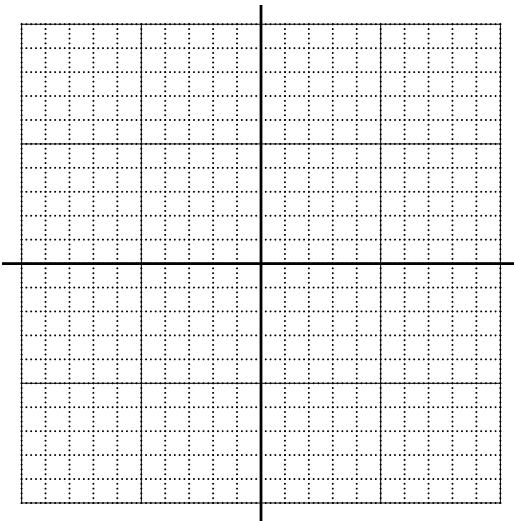
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## PCW\_09\_29: Graph Parent Translations (version 7)

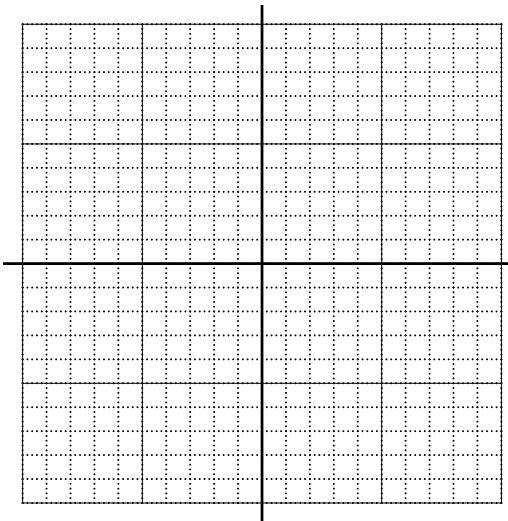
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

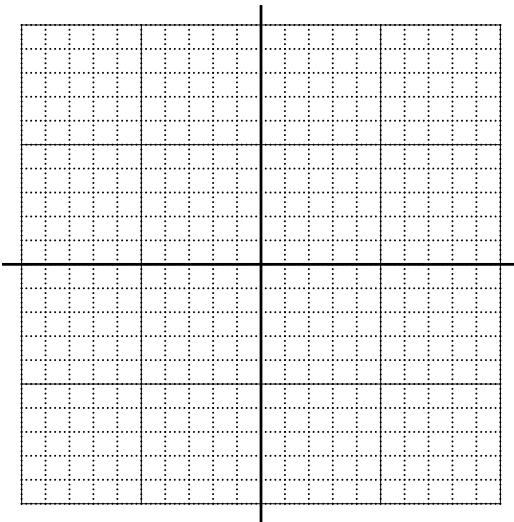
$$y = (x+3)^2 + 4$$



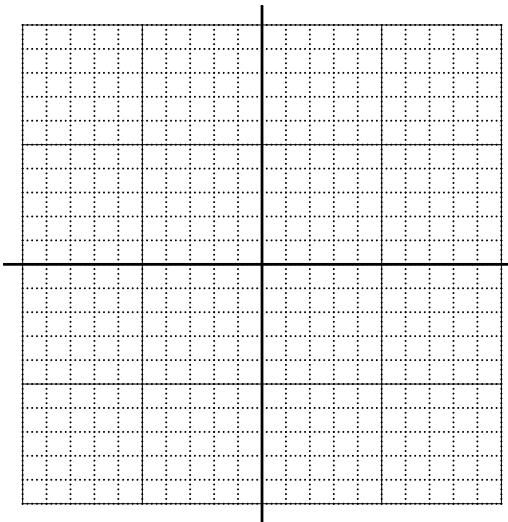
$$y = (x+3)^3 - 2$$



$$y = \frac{1}{x+4} - 5$$

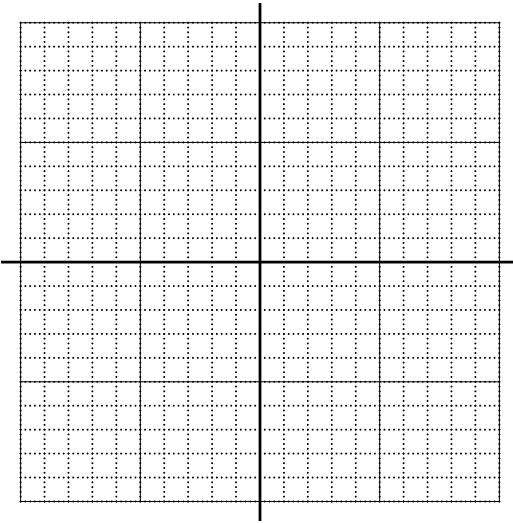


$$y = \log_2(x+3) - 1$$

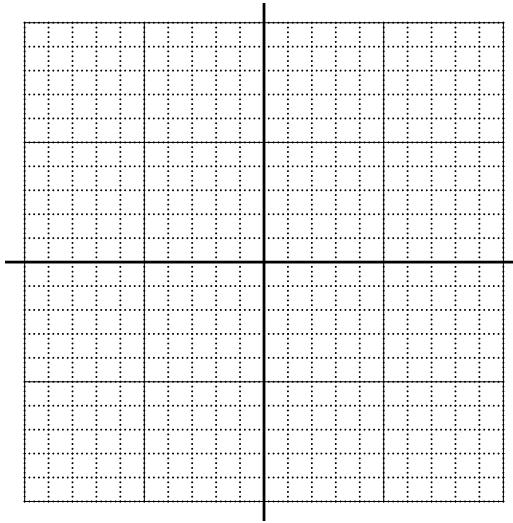


## PCW\_09\_29: Graph Parent Translations (version 7)

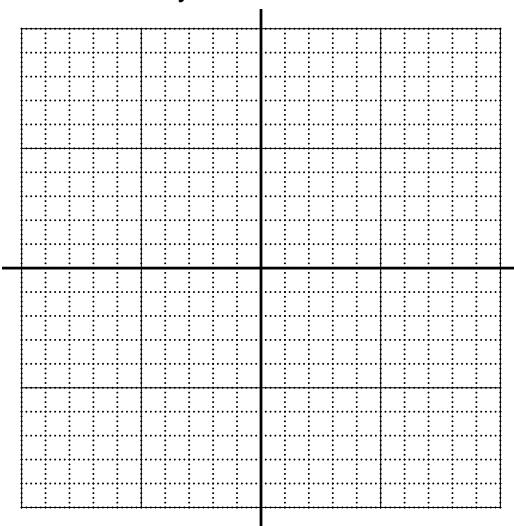
$$y = 2^{x+2} + 3$$



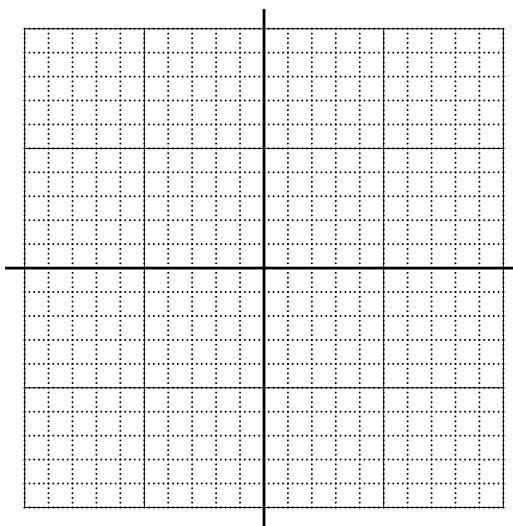
$$y = \sqrt{x+3} - 4$$



$$y = \sqrt[3]{x+3} - 2$$



$$y = |x - 3| + 1$$



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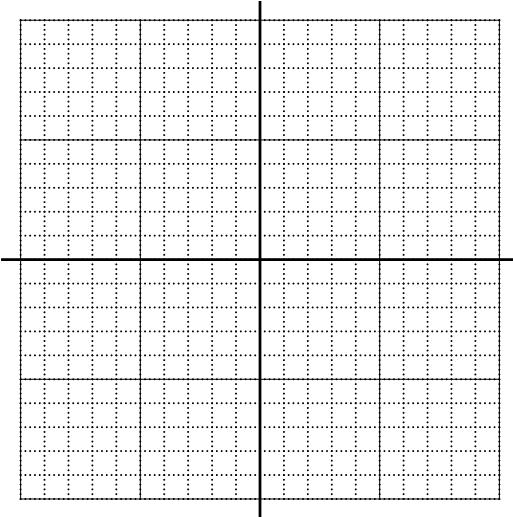
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### PCW\_09\_29: Graph Parent Translations (version 8)

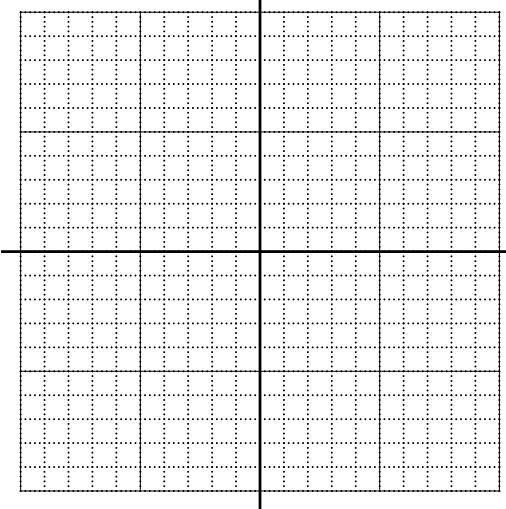
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

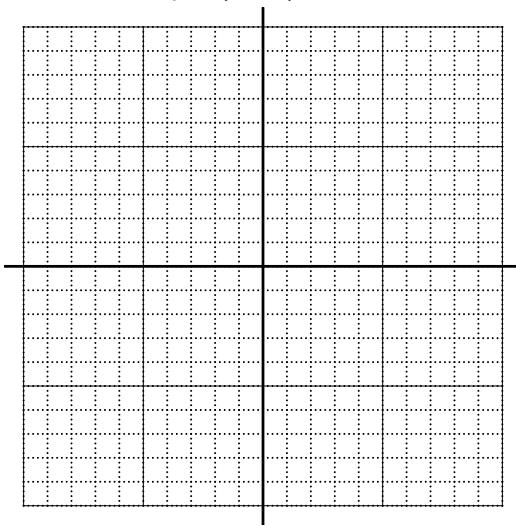
$$y = \log_2(x+1) - 5$$



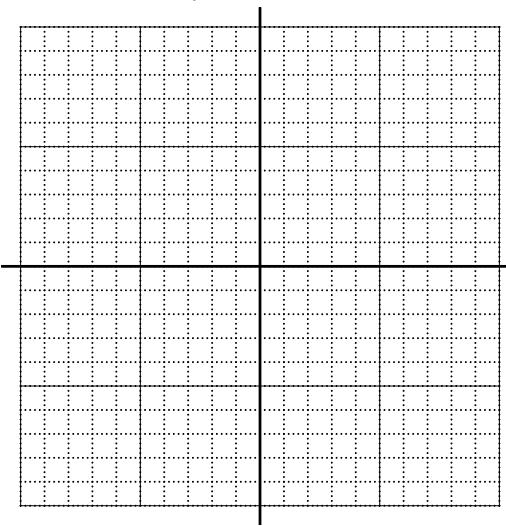
$$y = \frac{1}{x+3} + 2$$



$$y = (x+3)^2 + 4$$

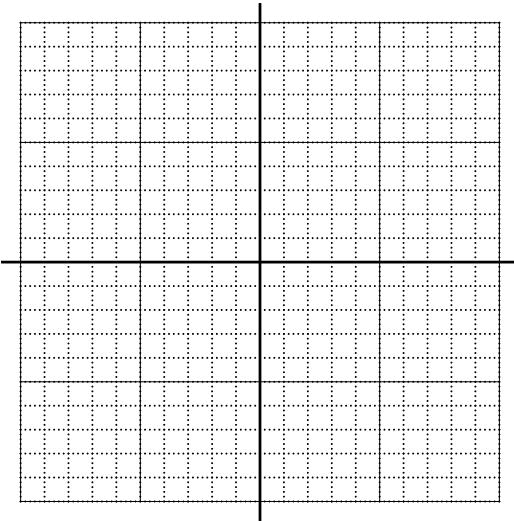


$$y = 2^{x+1} + 5$$

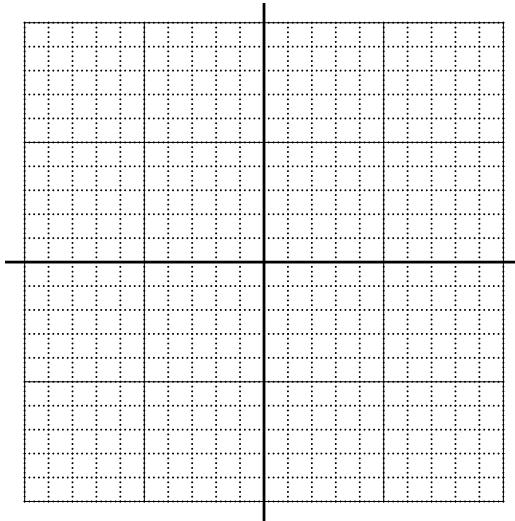


## PCW\_09\_29: Graph Parent Translations (version 8)

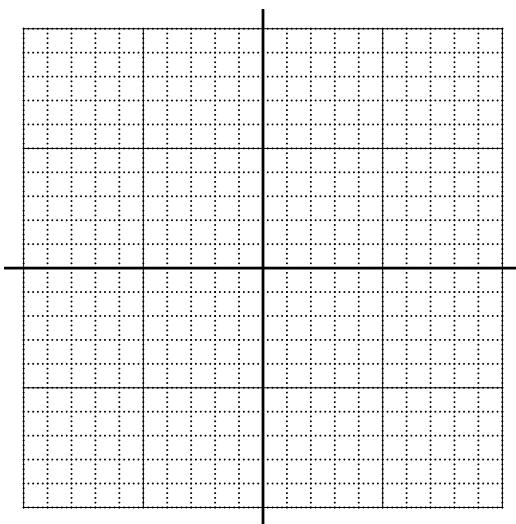
$$y = (x + 3)^3 - 5$$



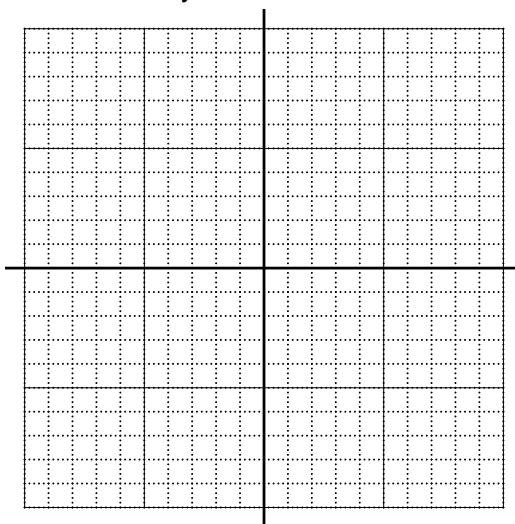
$$y = \sqrt[3]{x + 2} - 1$$



$$y = |x + 2| - 1$$



$$y = \sqrt{x + 2} - 4$$



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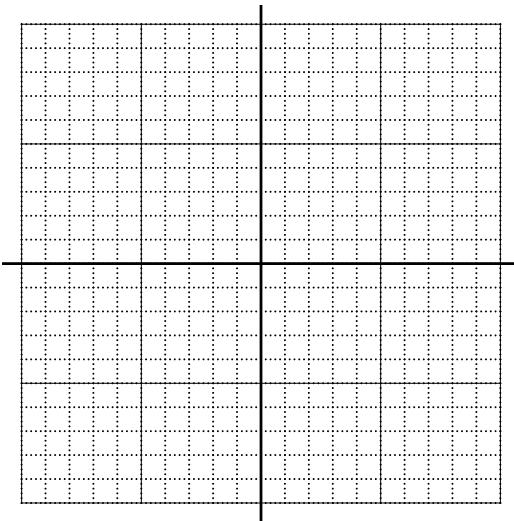
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### PCW\_09\_29: Graph Parent Translations (version 9)

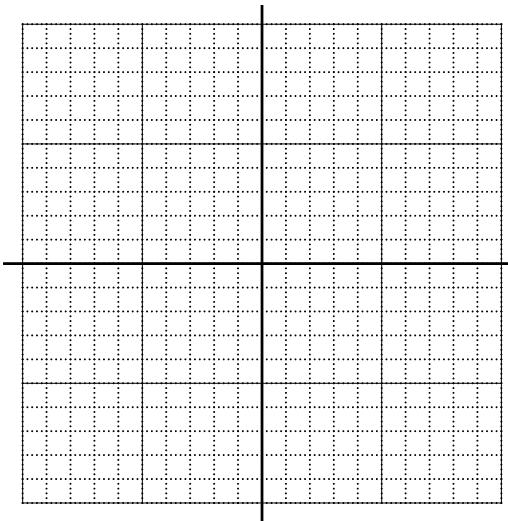
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

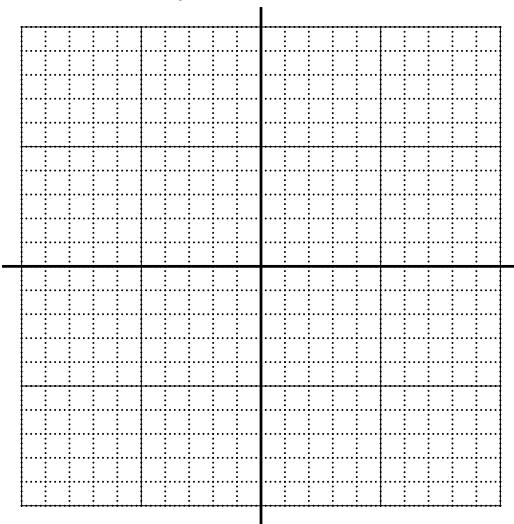
$$y = (x+3)^3 - 2$$



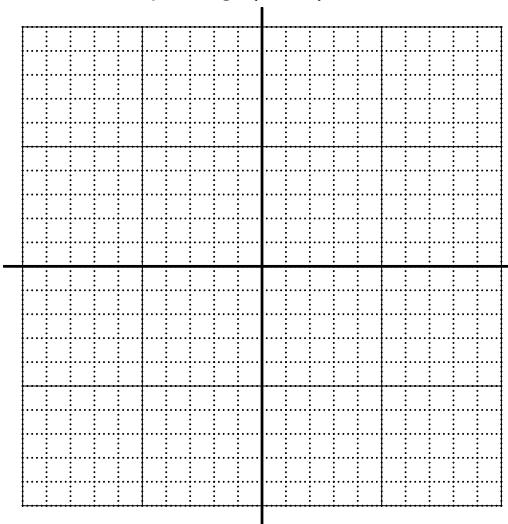
$$y = \sqrt{x+2} + 1$$



$$y = \sqrt[3]{x+3} - 4$$

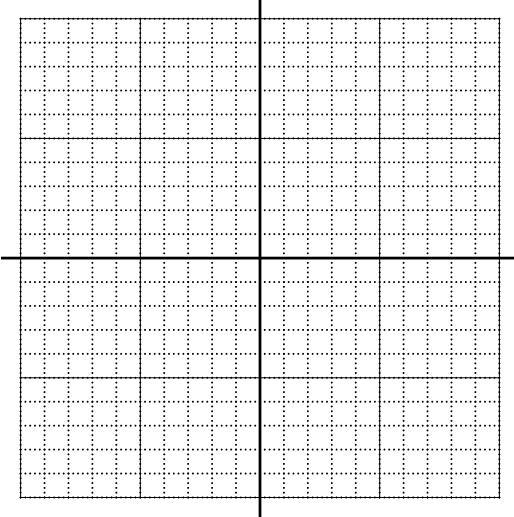


$$y = \log_2(x-1) + 5$$

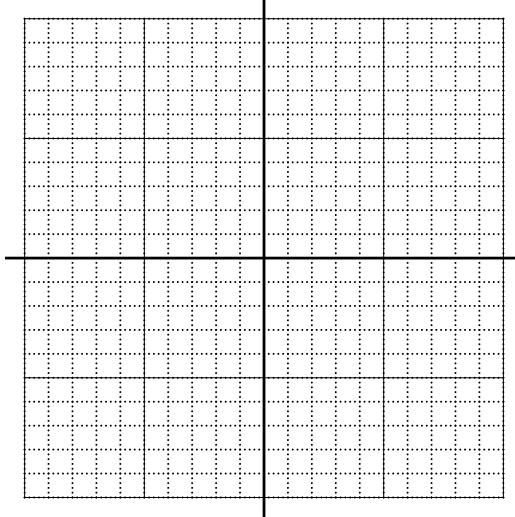


## PCW\_09\_29: Graph Parent Translations (version 9)

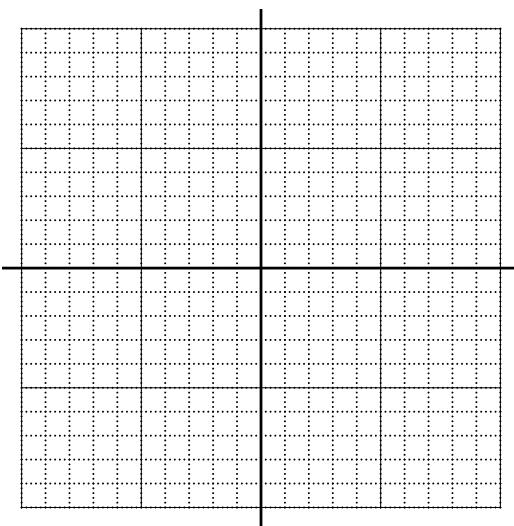
$$y = \frac{1}{x+2} + 3$$



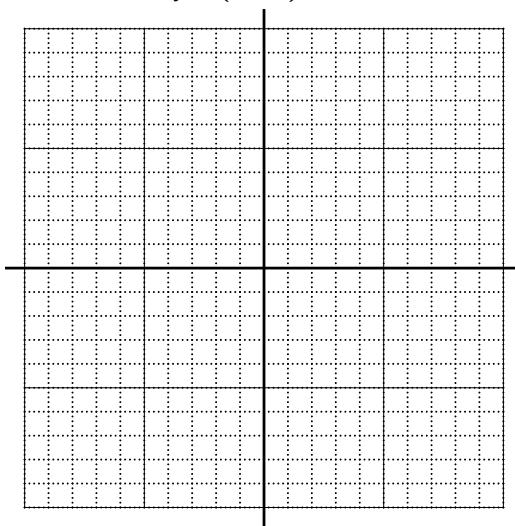
$$y = 2^{x-2} + 3$$



$$y = |x - 5| + 1$$



$$y = (x - 3)^2 - 5$$



Name: \_\_\_\_\_

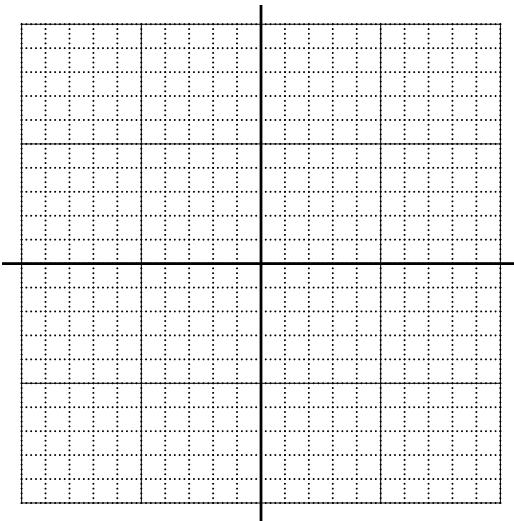
Date: \_\_\_\_\_

## PCW\_09\_29: Graph Parent Translations (version 10)

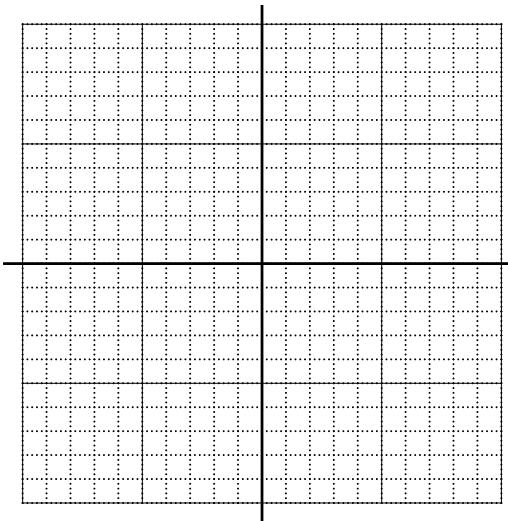
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

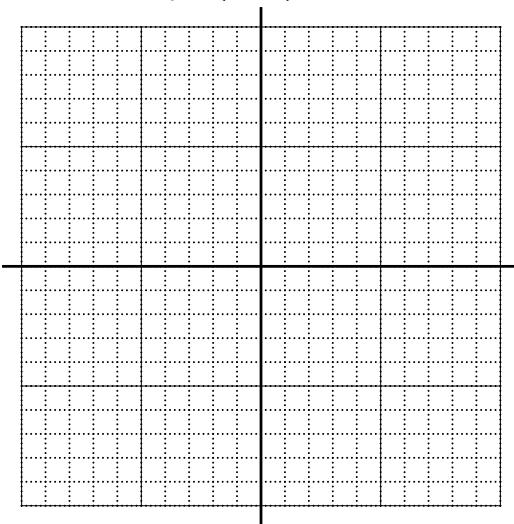
$$y = (x - 3)^3 - 4$$



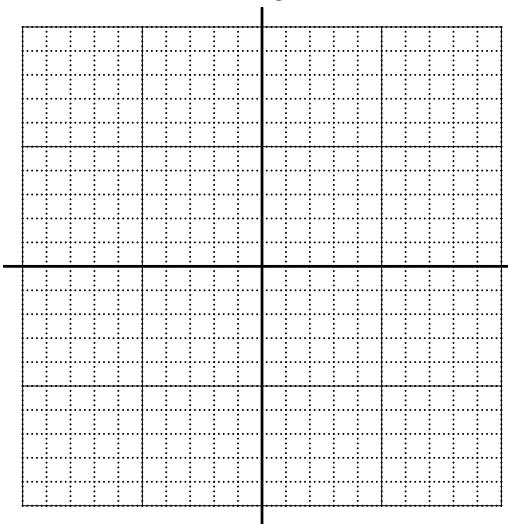
$$y = |x + 2| + 3$$



$$y = (x + 5)^2 + 3$$

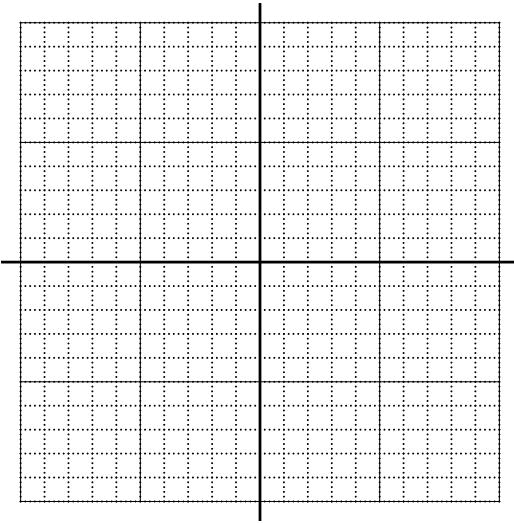


$$y = \frac{1}{x+3} - 2$$

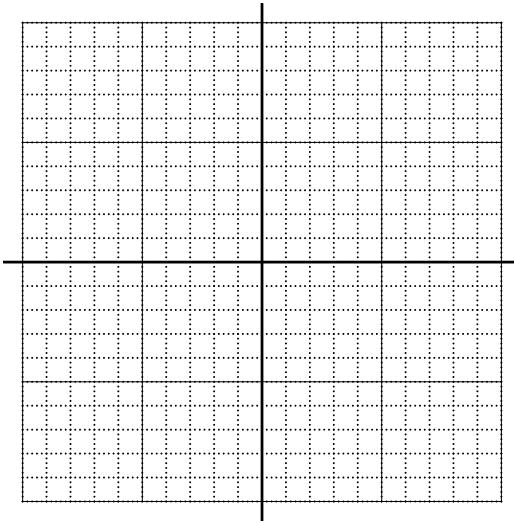


## PCW\_09\_29: Graph Parent Translations (version 10)

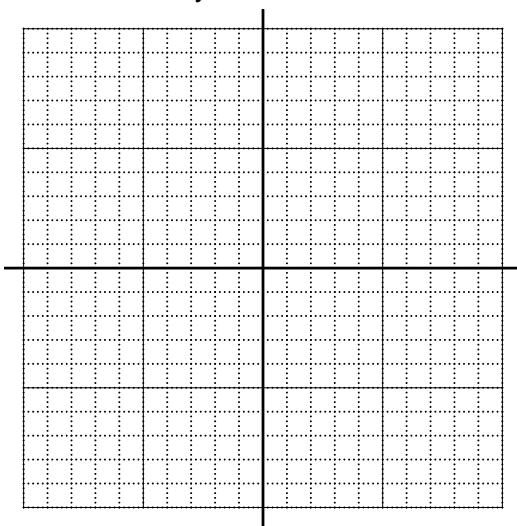
$$y = \log_2(x - 5) + 1$$



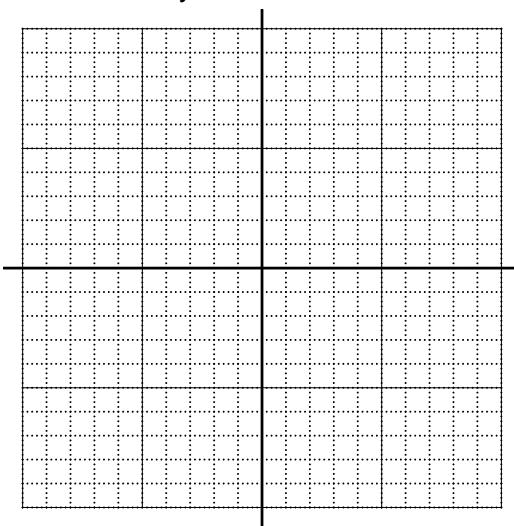
$$y = \sqrt[3]{x + 2} - 1$$



$$y = 2^{x-2} + 1$$



$$y = \sqrt{x - 2} + 5$$



Name: \_\_\_\_\_

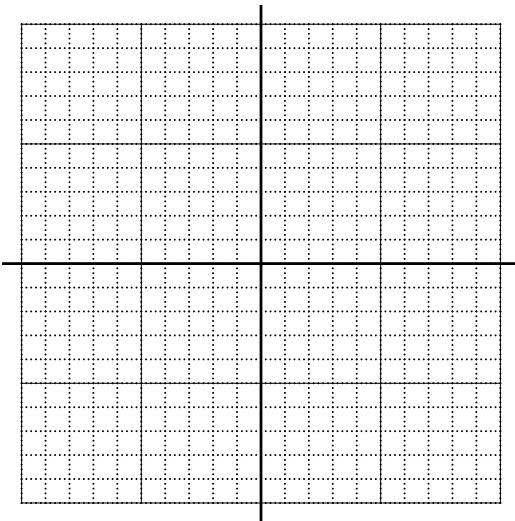
Date: \_\_\_\_\_

### PCW\_09\_29: Graph Parent Translations (version 11)

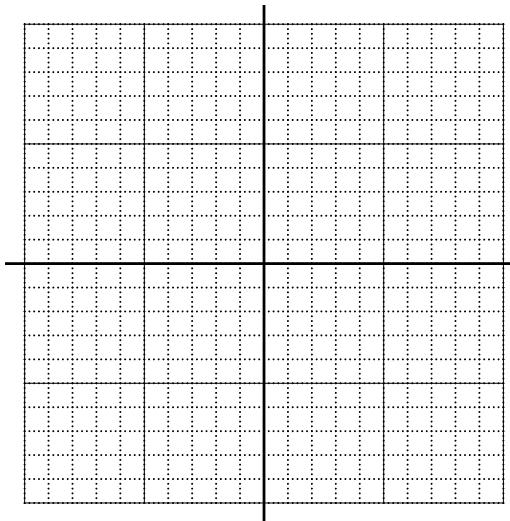
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

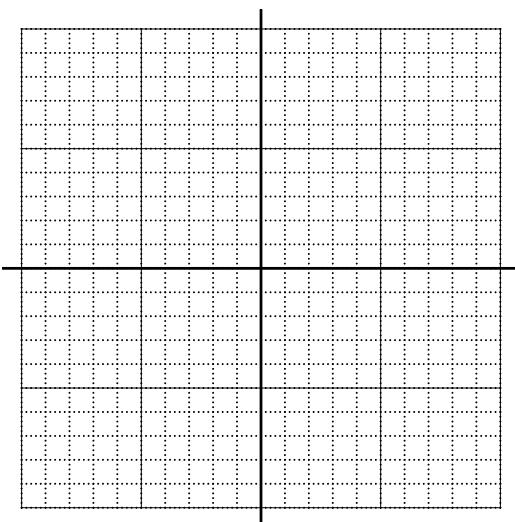
$$y = (x - 5)^2 - 3$$



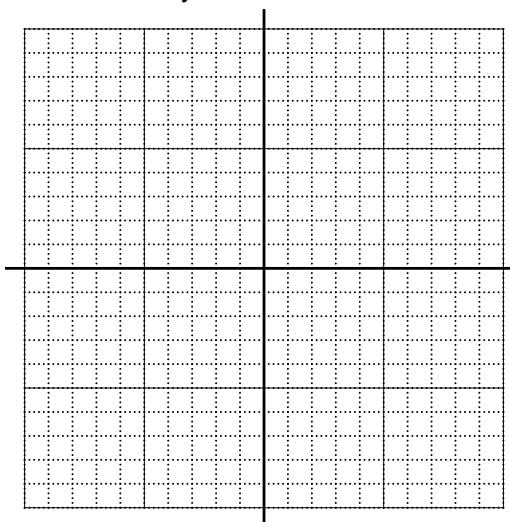
$$y = \log_2(x - 5) - 2$$



$$y = |x - 3| + 5$$

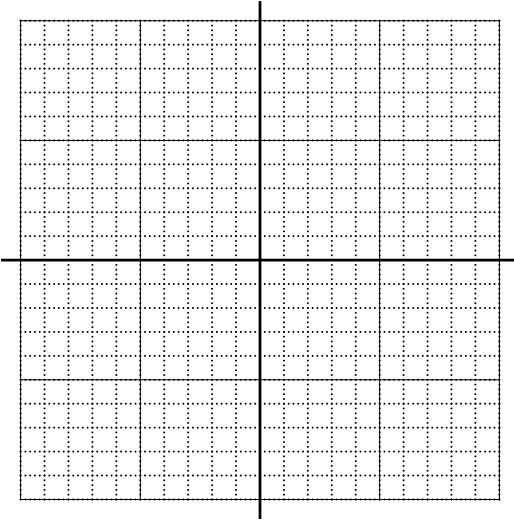


$$y = \sqrt[3]{x + 4} - 1$$

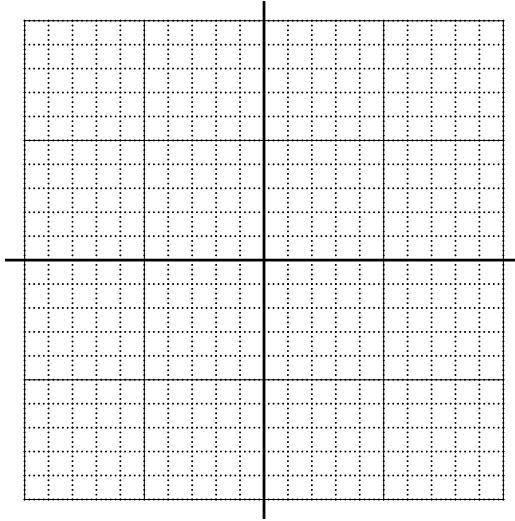


## PCW\_09\_29: Graph Parent Translations (version 11)

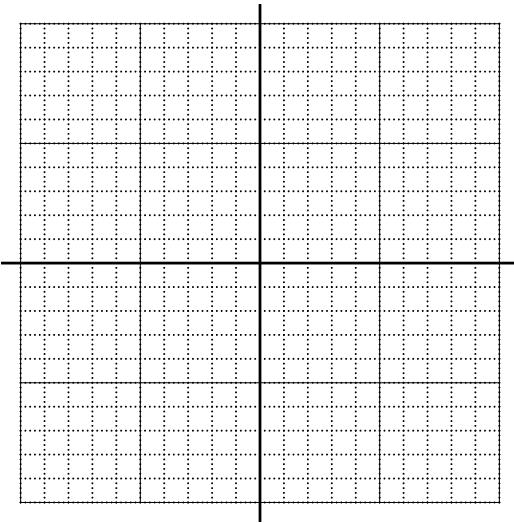
$$y = \sqrt{x+2} - 4$$



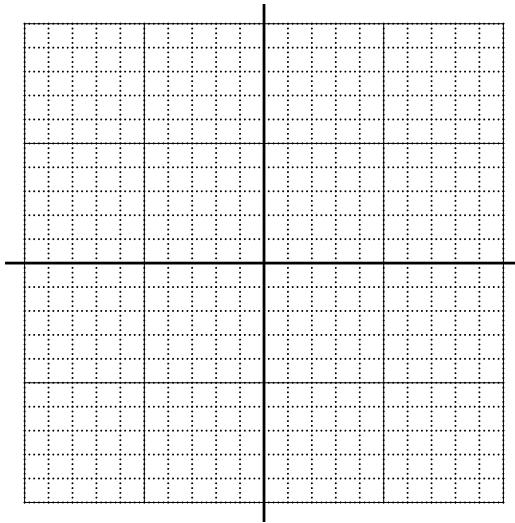
$$y = 2^{x+2} + 1$$



$$y = (x-1)^3 + 4$$



$$y = \frac{1}{x-5} + 1$$



Name: \_\_\_\_\_

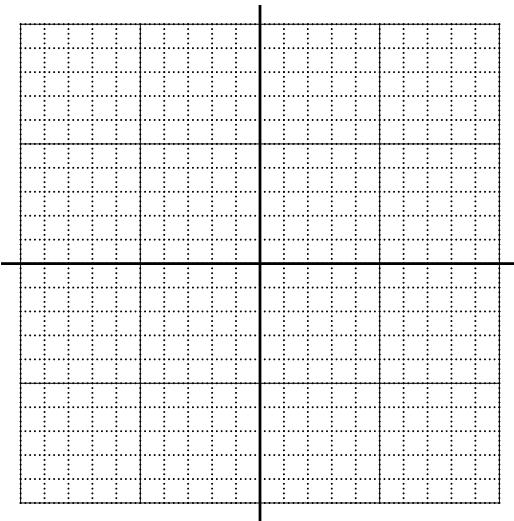
Date: \_\_\_\_\_

## PCW\_09\_29: Graph Parent Translations (version 12)

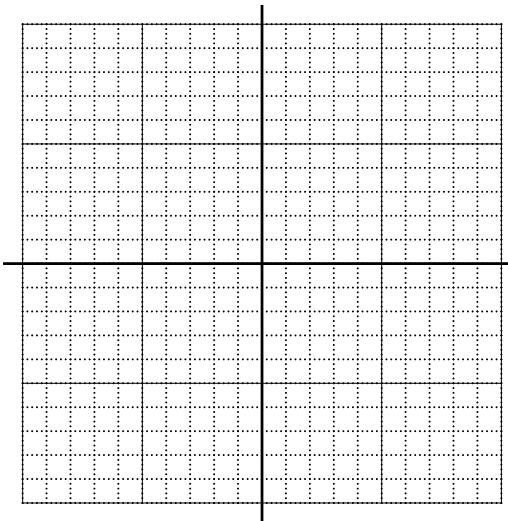
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

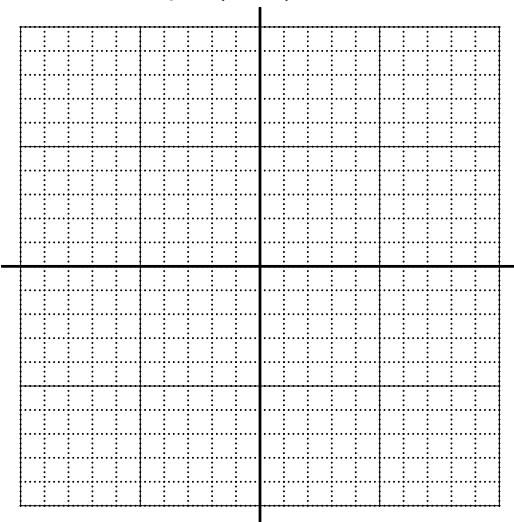
$$y = (x+2)^2 - 1$$



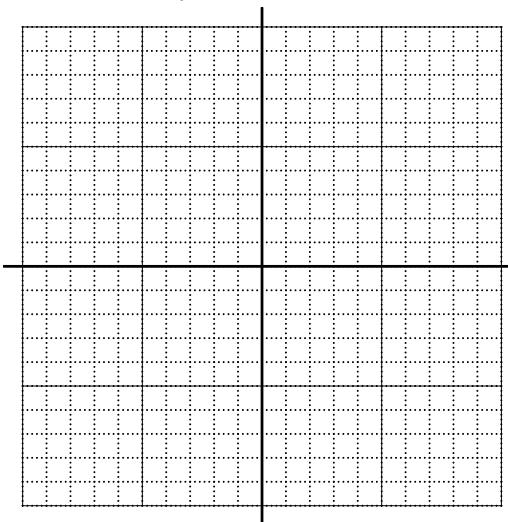
$$y = \log_2(x+4) - 2$$



$$y = (x+5)^3 + 4$$

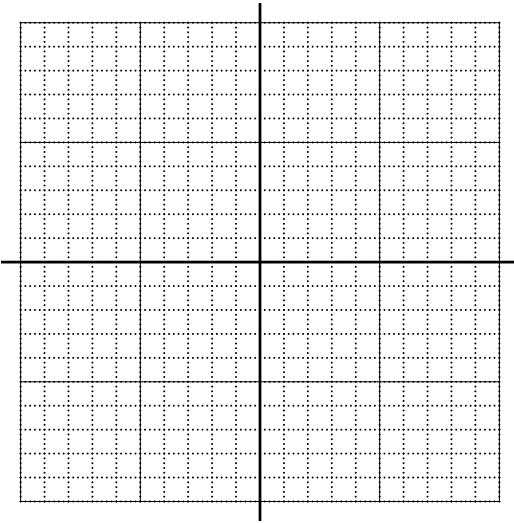


$$y = \sqrt{x-1} + 4$$

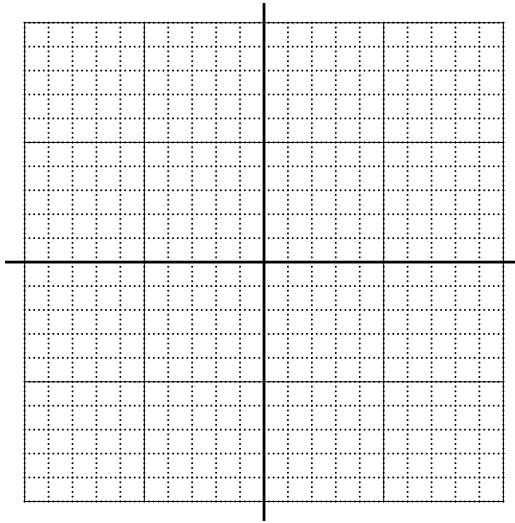


## PCW\_09\_29: Graph Parent Translations (version 12)

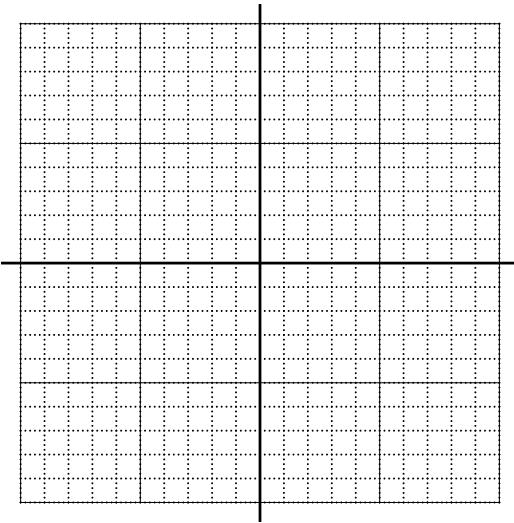
$$y = |x - 3| - 2$$



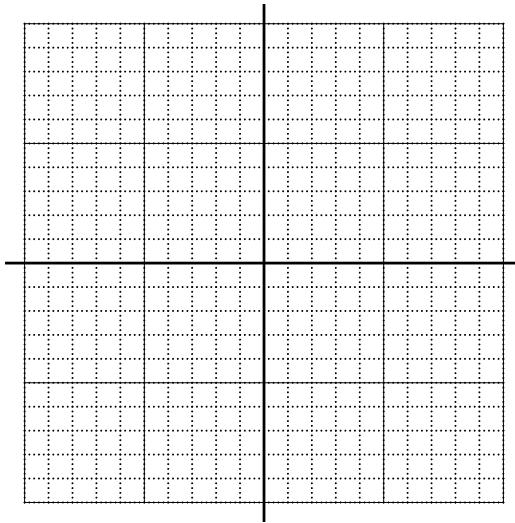
$$y = 2^{x-4} - 1$$



$$y = \sqrt[3]{x+2} - 3$$



$$y = \frac{1}{x+2} + 4$$



Name: \_\_\_\_\_

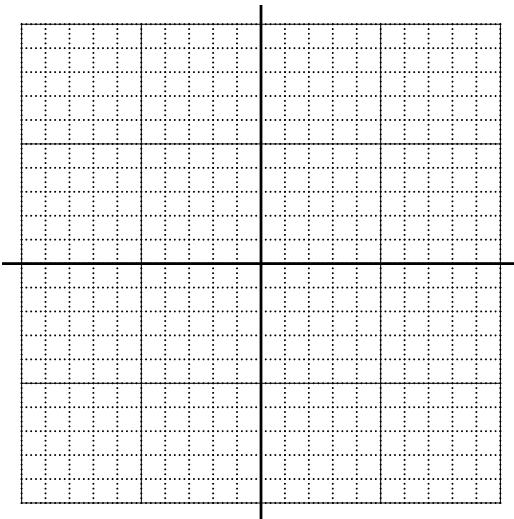
Date: \_\_\_\_\_

## PCW\_09\_29: Graph Parent Translations (version 13)

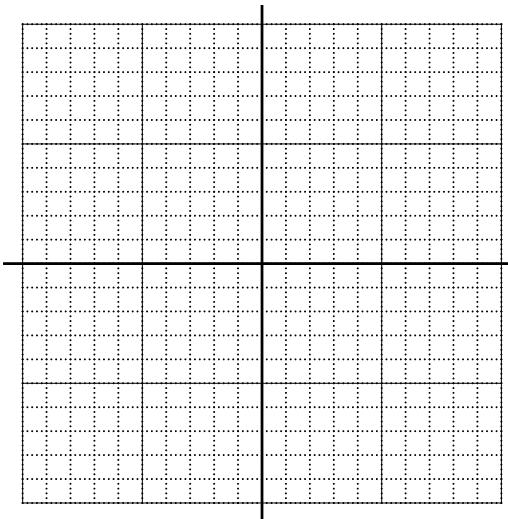
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

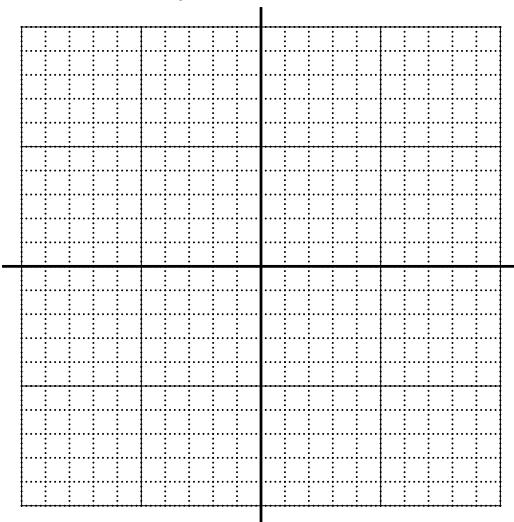
$$y = \log_2(x - 4) + 5$$



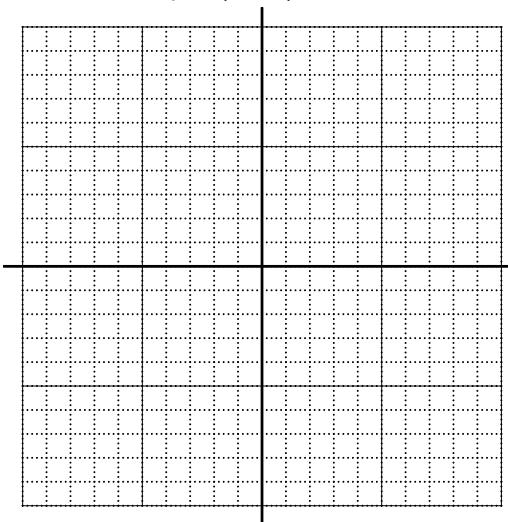
$$y = (x + 3)^3 + 1$$



$$y = \sqrt{x - 5} + 4$$

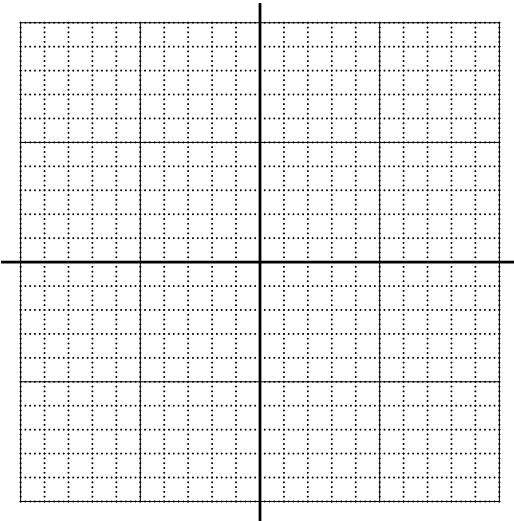


$$y = (x - 5)^2 + 3$$

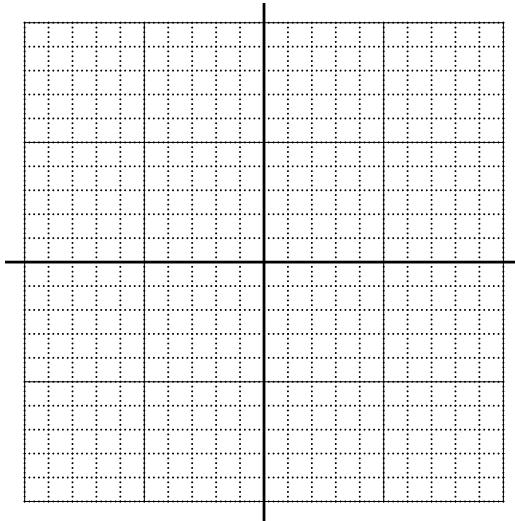


PCW\_09\_29: Graph Parent Translations (version 13)

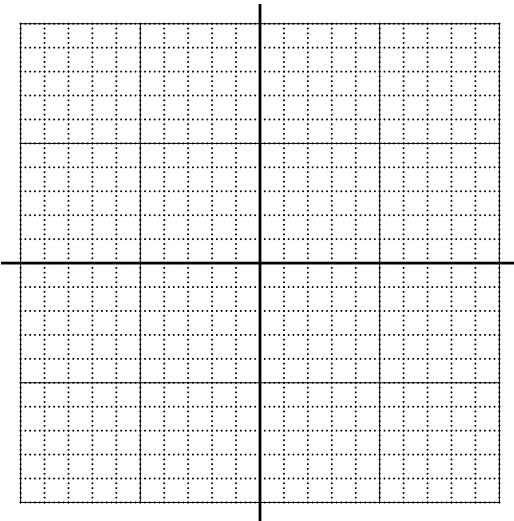
$$y = |x + 1| + 3$$



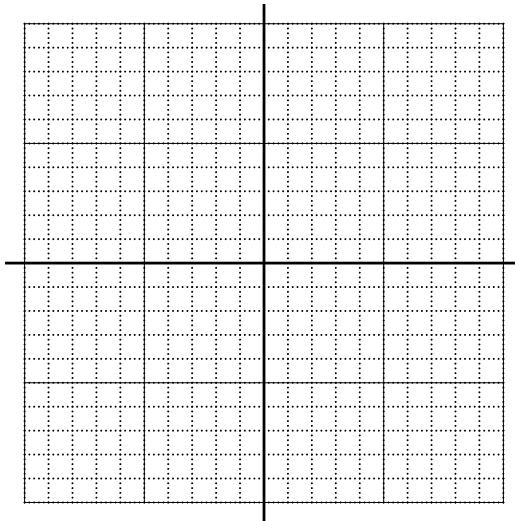
$$y = \sqrt[3]{x - 5} - 1$$



$$y = 2^{x+3} + 1$$



$$y = \frac{1}{x+2} - 1$$



Name: \_\_\_\_\_

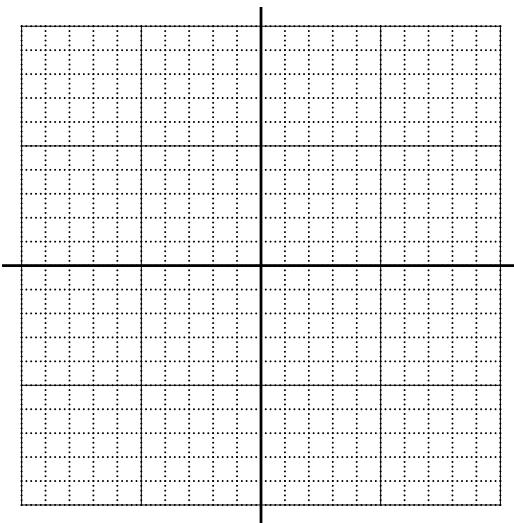
Date: \_\_\_\_\_

## PCW\_09\_29: Graph Parent Translations (version 14)

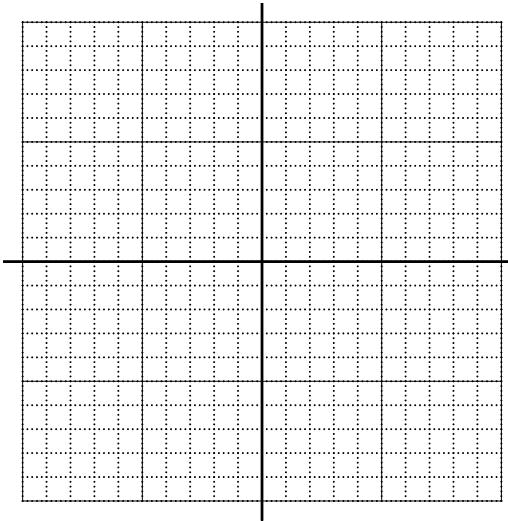
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

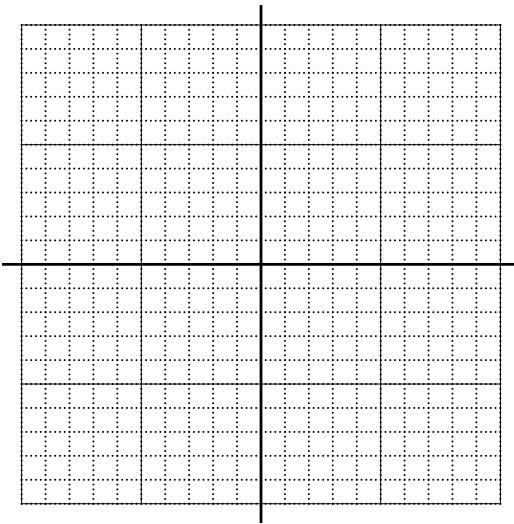
$$y = |x - 4| - 2$$



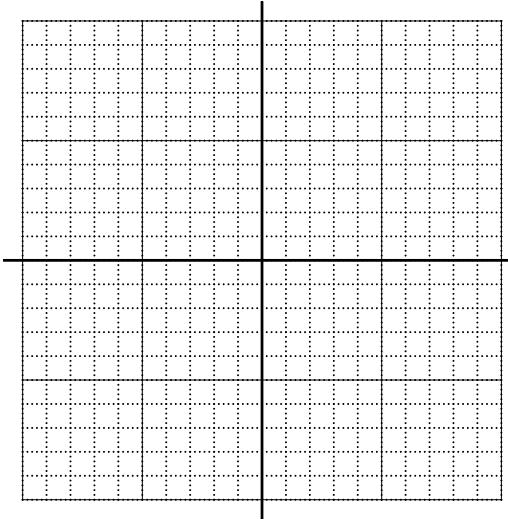
$$y = \log_2(x + 1) - 3$$



$$y = (x + 3)^3 - 1$$

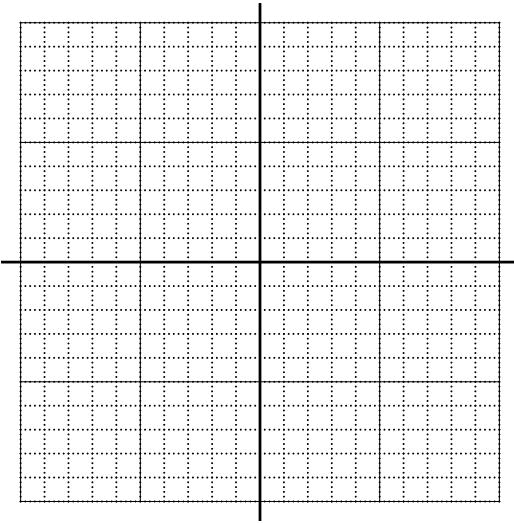


$$y = \frac{1}{x+5} - 1$$

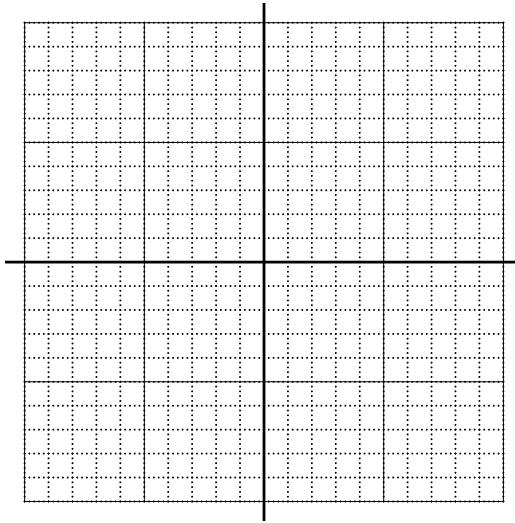


PCW\_09\_29: Graph Parent Translations (version 14)

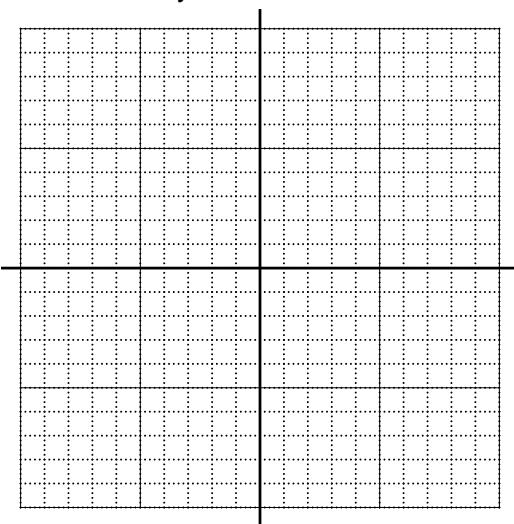
$$y = \sqrt[3]{x+4} + 1$$



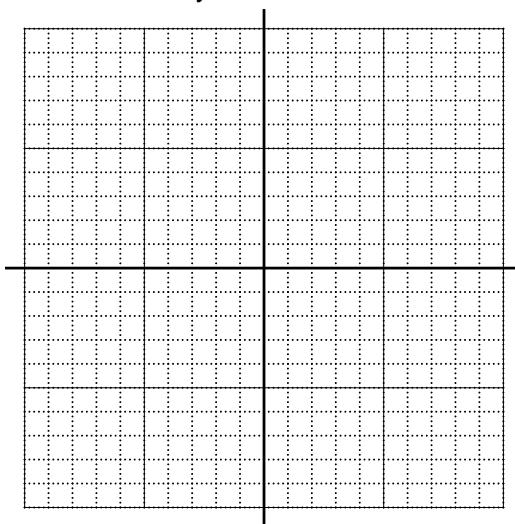
$$y = (x+1)^2 - 4$$



$$y = \sqrt{x+4} + 2$$



$$y = 2^{x-2} + 3$$



Name: \_\_\_\_\_

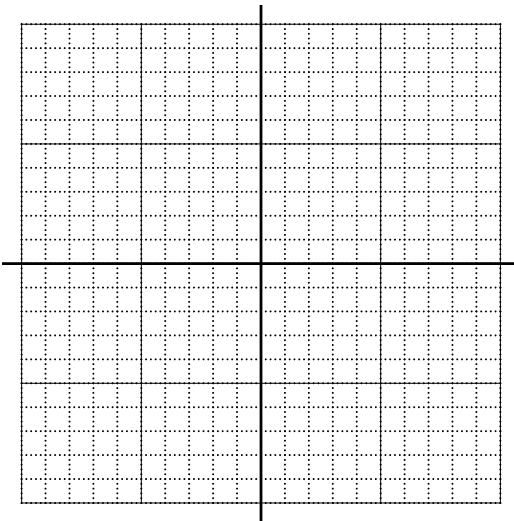
Date: \_\_\_\_\_

### PCW\_09\_29: Graph Parent Translations (version 15)

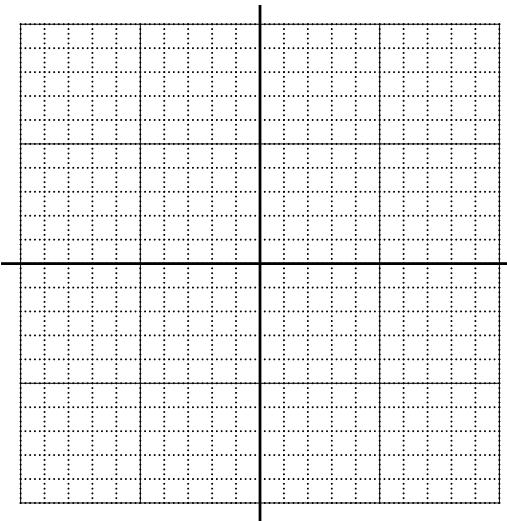
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

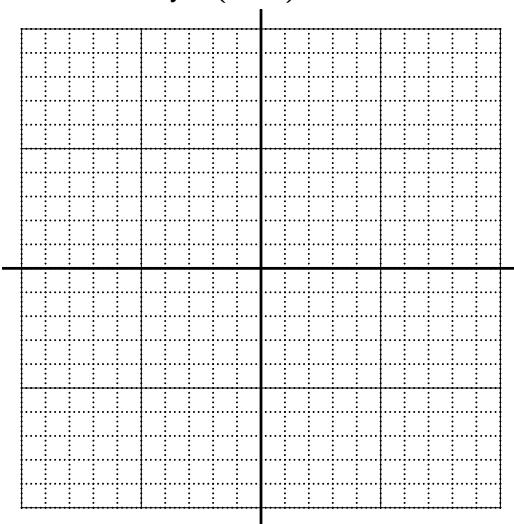
$$y = \sqrt{x-1} + 4$$



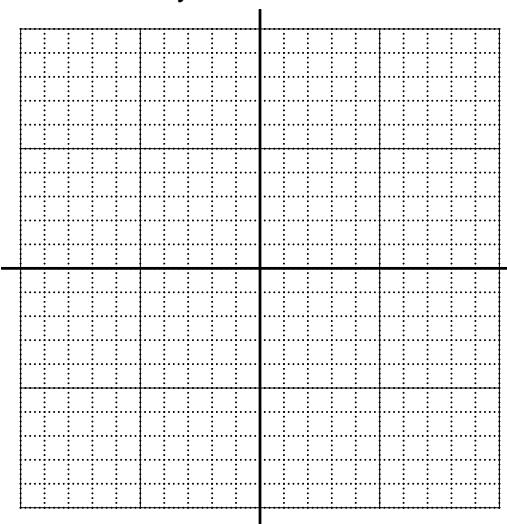
$$y = 2^{x+1} - 4$$



$$y = (x+5)^2 - 3$$

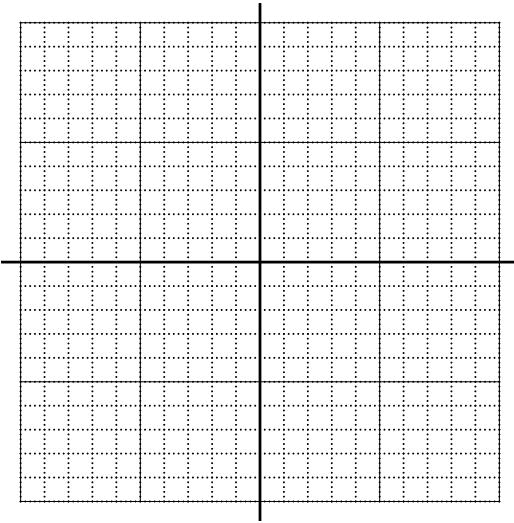


$$y = \sqrt[3]{x-2} - 5$$

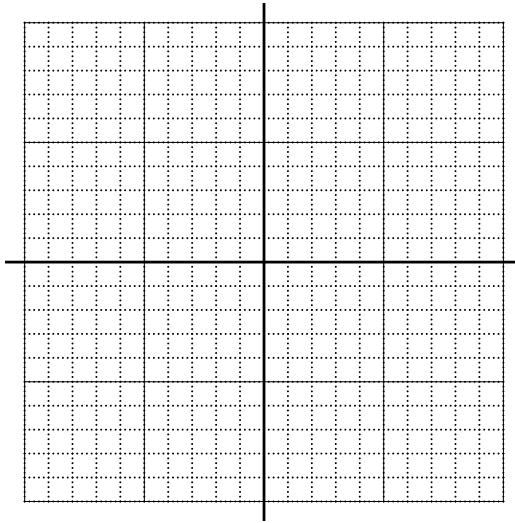


## PCW\_09\_29: Graph Parent Translations (version 15)

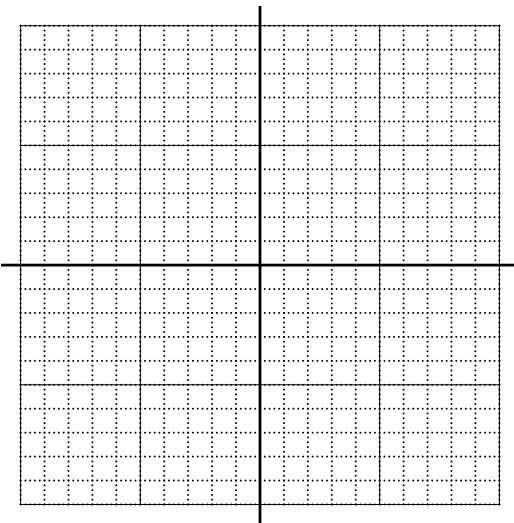
$$y = |x + 3| + 1$$



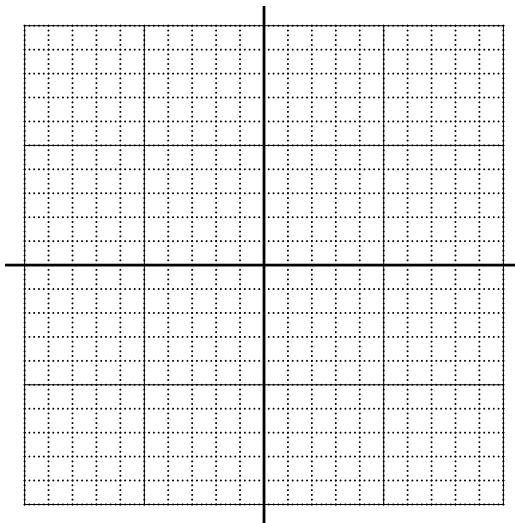
$$y = \log_2(x - 2) - 5$$



$$y = \frac{1}{x - 3} - 2$$



$$y = (x - 5)^3 + 3$$



Name: \_\_\_\_\_

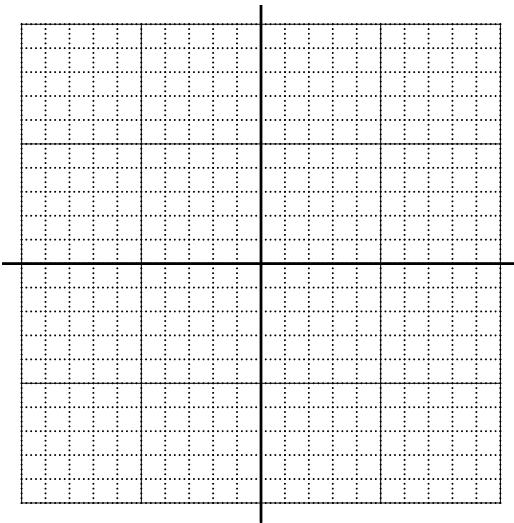
Date: \_\_\_\_\_

### PCW\_09\_29: Graph Parent Translations (version 16)

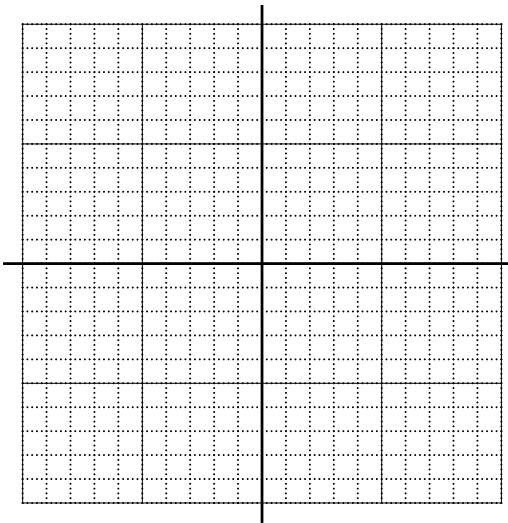
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

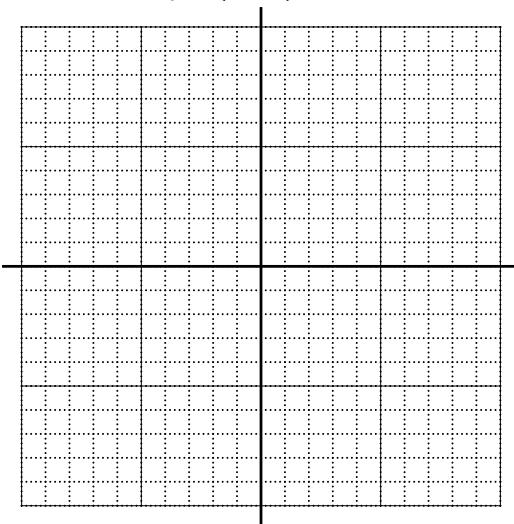
$$y = |x + 3| - 4$$



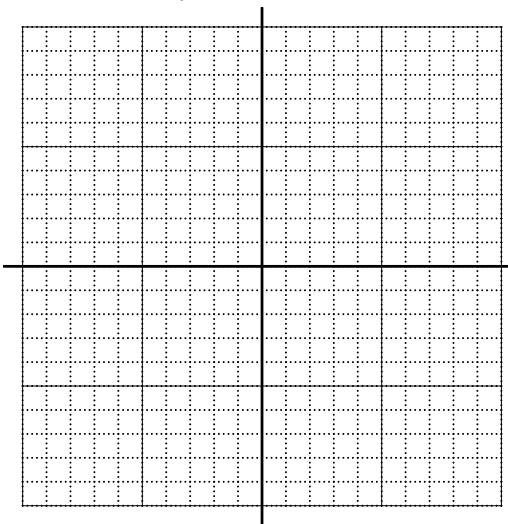
$$y = 2^{x+5} - 2$$



$$y = (x + 4)^3 + 3$$

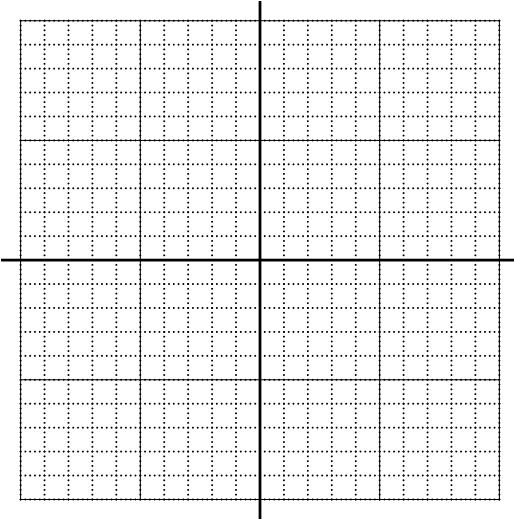


$$y = \sqrt{x - 1} - 2$$

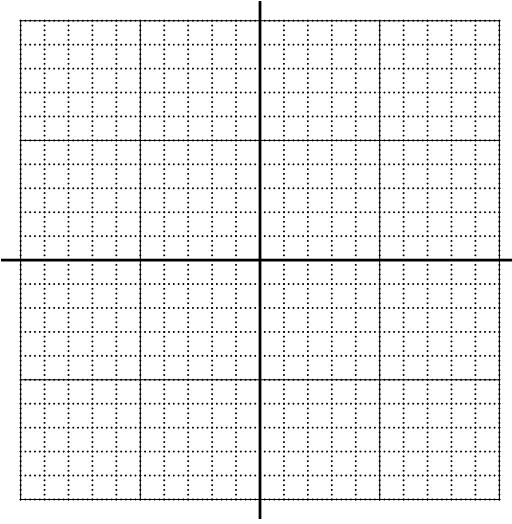


## PCW\_09\_29: Graph Parent Translations (version 16)

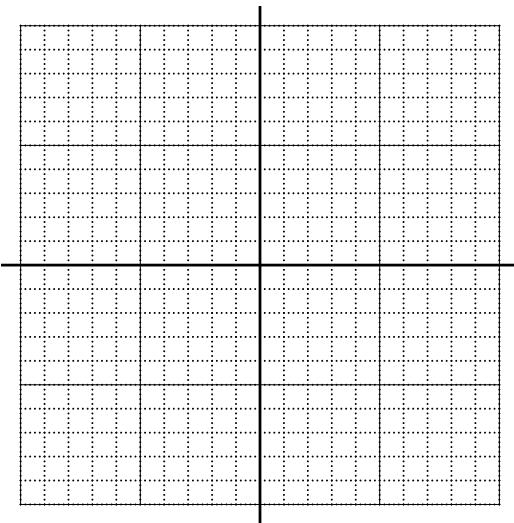
$$y = \sqrt[3]{x+5} + 4$$



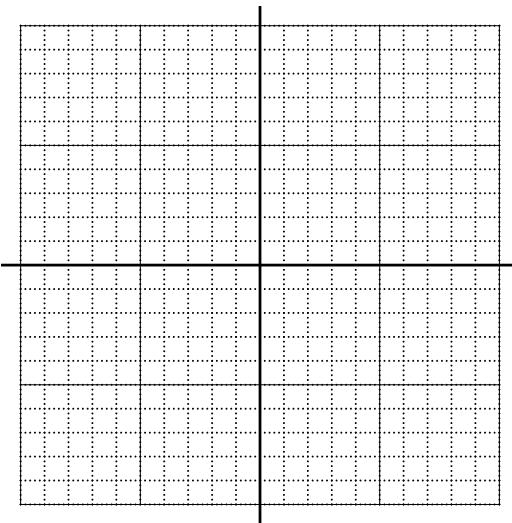
$$y = \frac{1}{x-4} + 1$$



$$y = (x+3)^2 - 4$$



$$y = \log_2(x-3) + 5$$



Name: \_\_\_\_\_

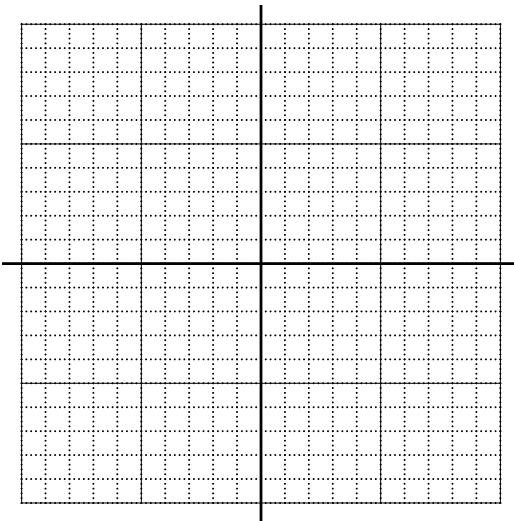
Date: \_\_\_\_\_

## PCW\_09\_29: Graph Parent Translations (version 17)

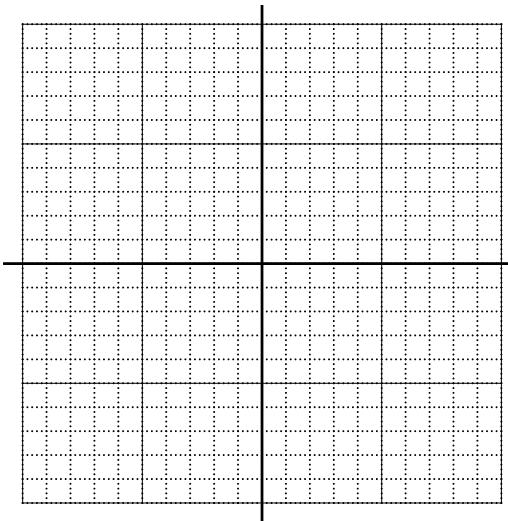
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

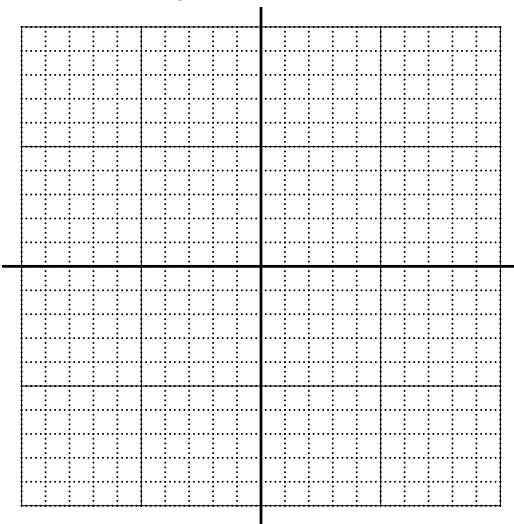
$$y = (x - 2)^2 - 5$$



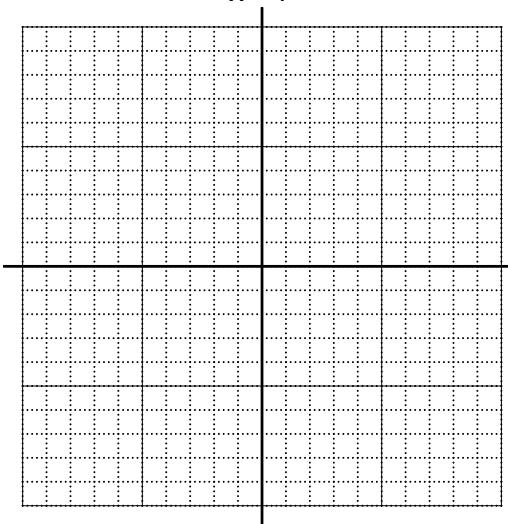
$$y = |x + 4| + 1$$



$$y = \sqrt[3]{x + 4} - 1$$

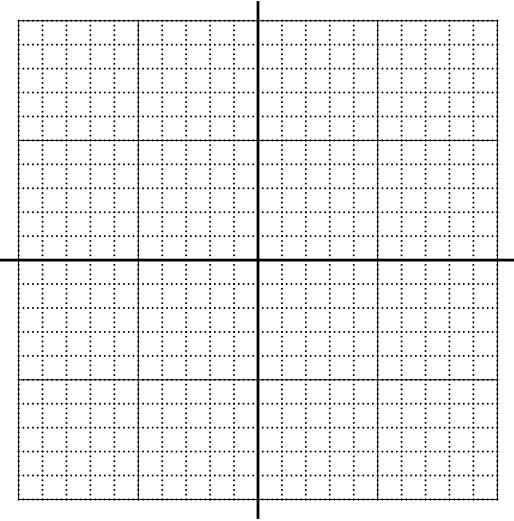


$$y = \frac{1}{x - 4} + 1$$

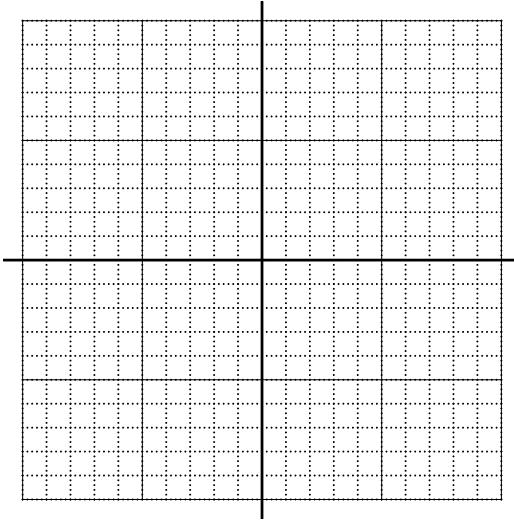


## PCW\_09\_29: Graph Parent Translations (version 17)

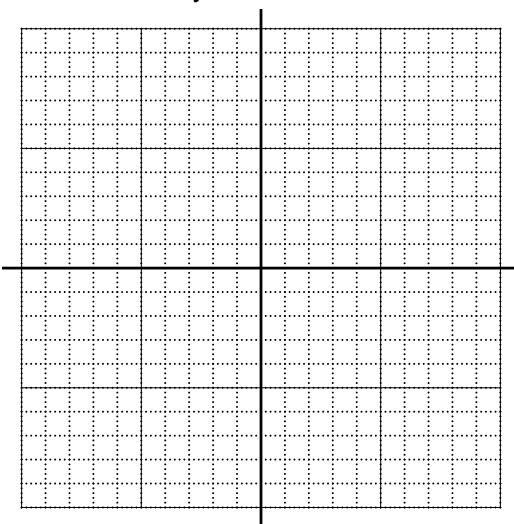
$$y = (x - 1)^3 + 4$$



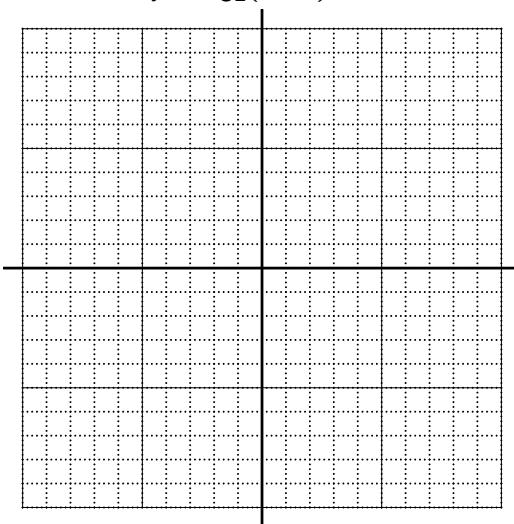
$$y = \sqrt{x + 3} + 4$$



$$y = 2^{x-5} - 3$$



$$y = \log_2(x + 4) - 1$$



Name: \_\_\_\_\_

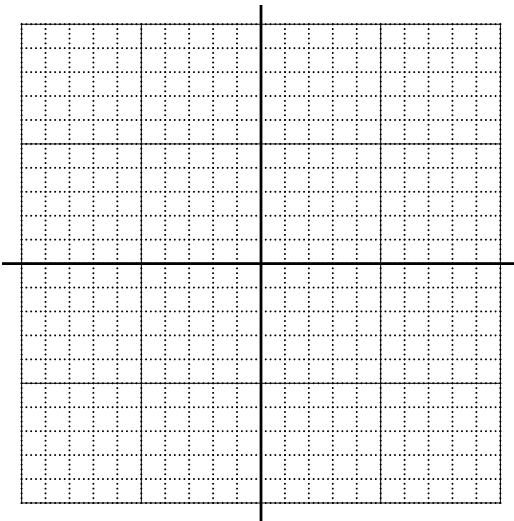
Date: \_\_\_\_\_

## PCW\_09\_29: Graph Parent Translations (version 18)

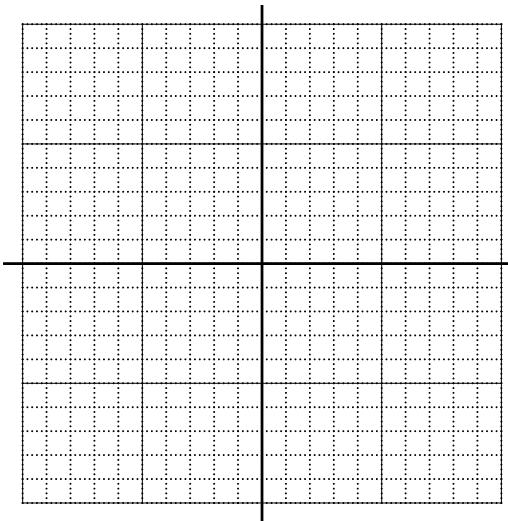
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

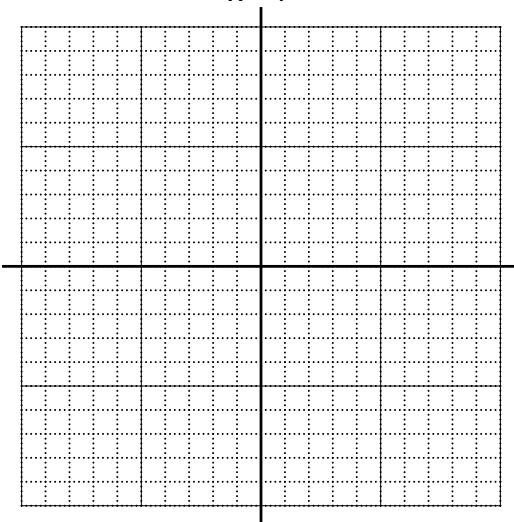
$$y = (x+4)^2 + 1$$



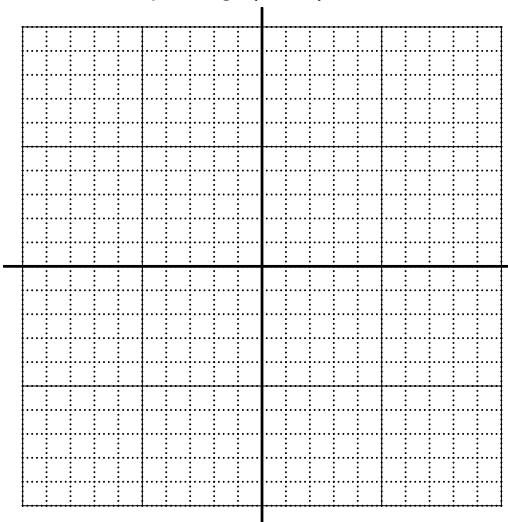
$$y = |x+1| - 2$$



$$y = \frac{1}{x-4} - 2$$

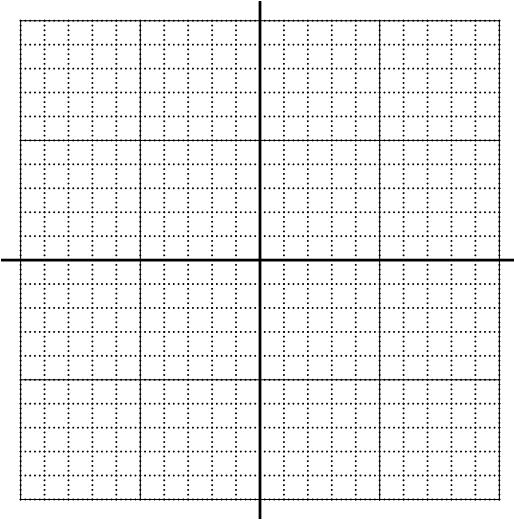


$$y = \log_2(x-5) + 3$$

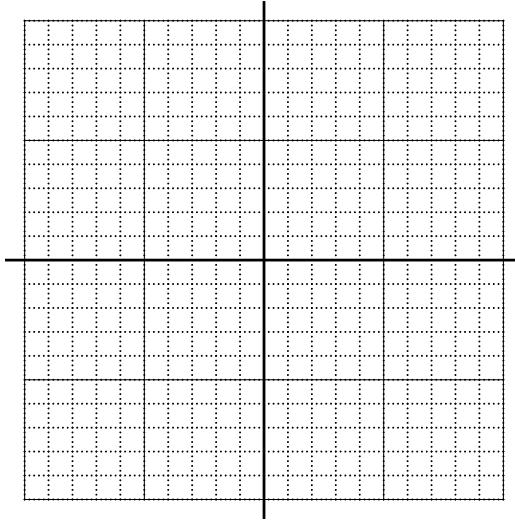


## PCW\_09\_29: Graph Parent Translations (version 18)

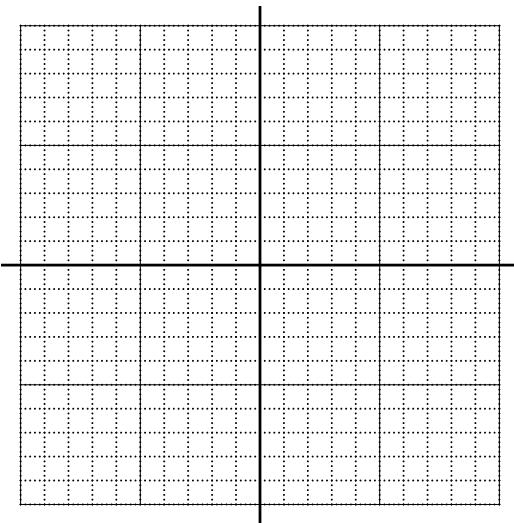
$$y = \sqrt{x+5} + 1$$



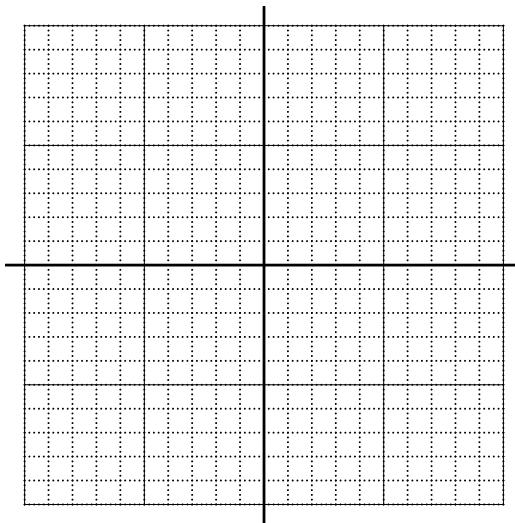
$$y = 2^{x-3} - 4$$



$$y = \sqrt[3]{x-1} - 2$$



$$y = (x-2)^3 + 5$$



Name: \_\_\_\_\_

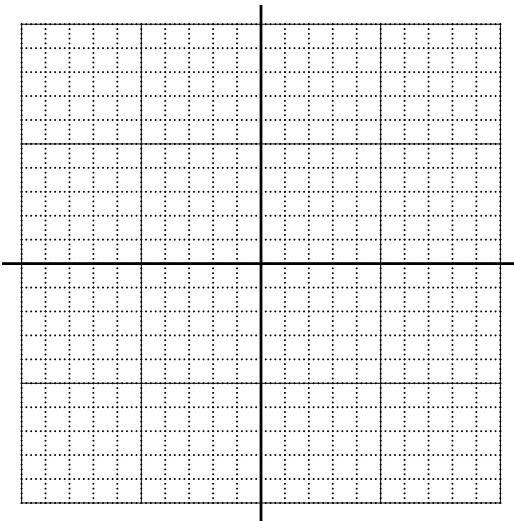
Date: \_\_\_\_\_

## PCW\_09\_29: Graph Parent Translations (version 19)

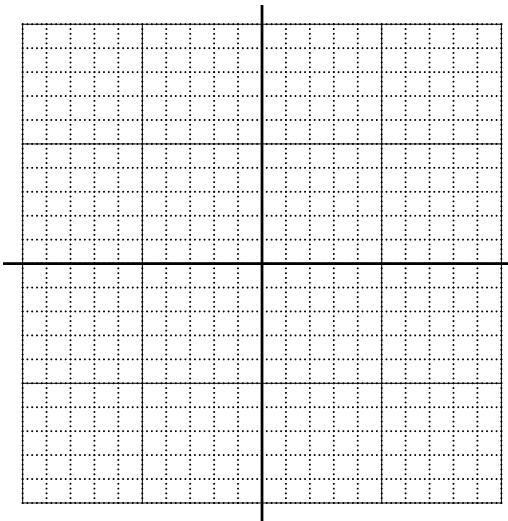
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

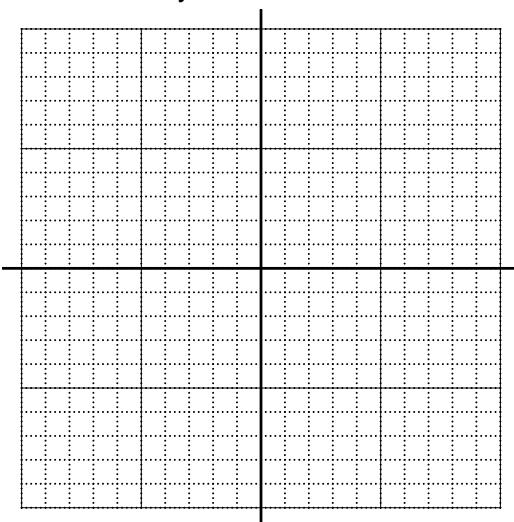
$$y = \sqrt{x-5} - 3$$



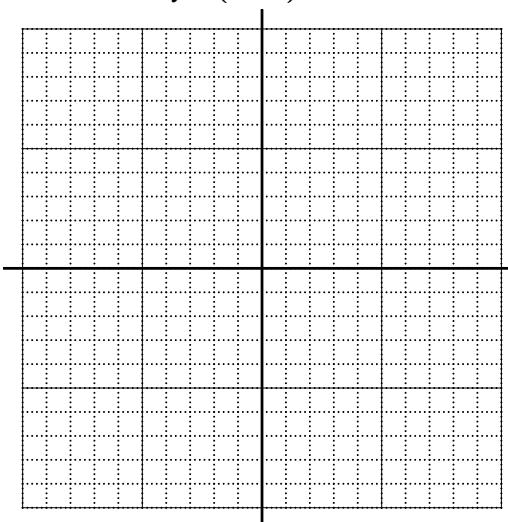
$$y = (x+5)^2 - 2$$



$$y = \sqrt[3]{x+4} + 5$$

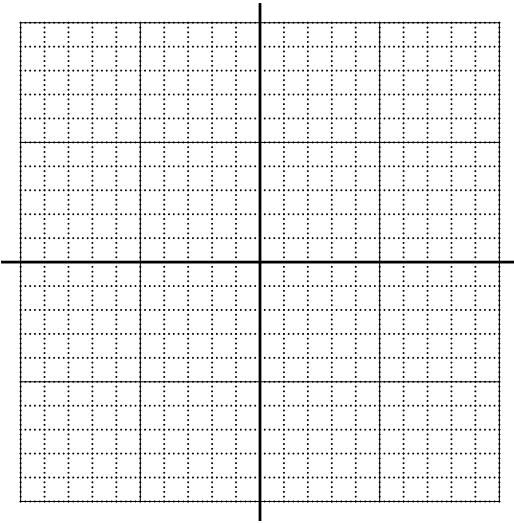


$$y = (x-5)^3 - 4$$

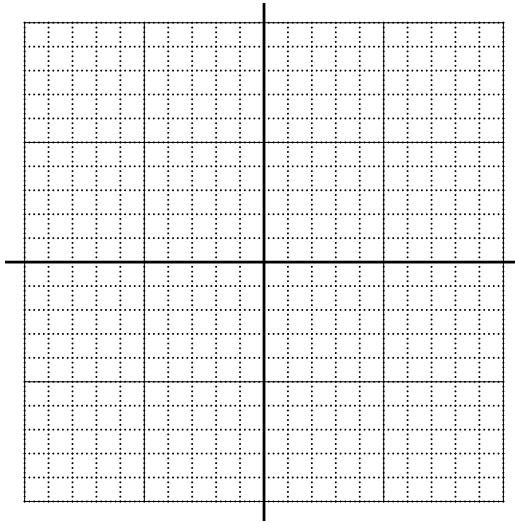


## PCW\_09\_29: Graph Parent Translations (version 19)

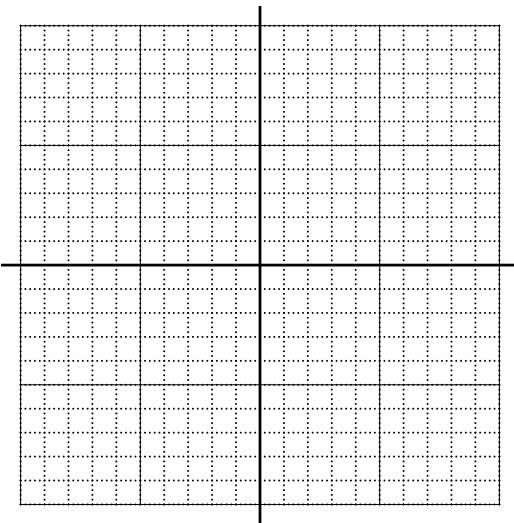
$$y = |x - 3| + 1$$



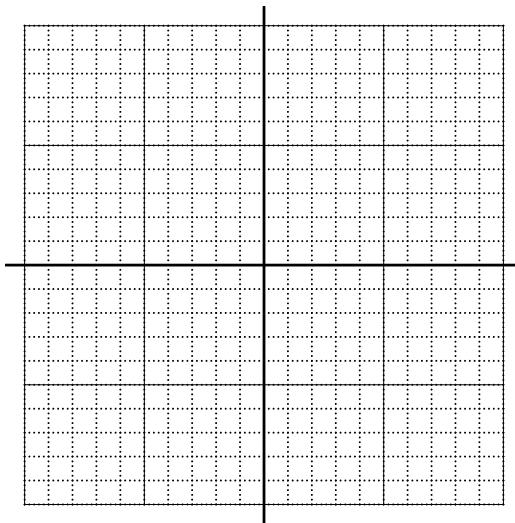
$$y = 2^{x+3} + 1$$



$$y = \frac{1}{x+1} + 4$$



$$y = \log_2(x+4) - 5$$



Name: \_\_\_\_\_

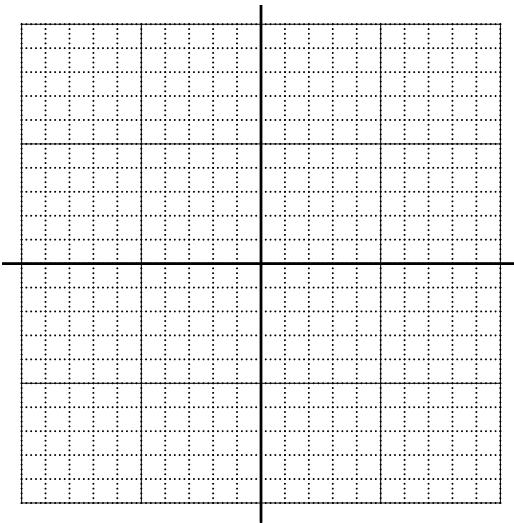
Date: \_\_\_\_\_

## PCW\_09\_29: Graph Parent Translations (version 20)

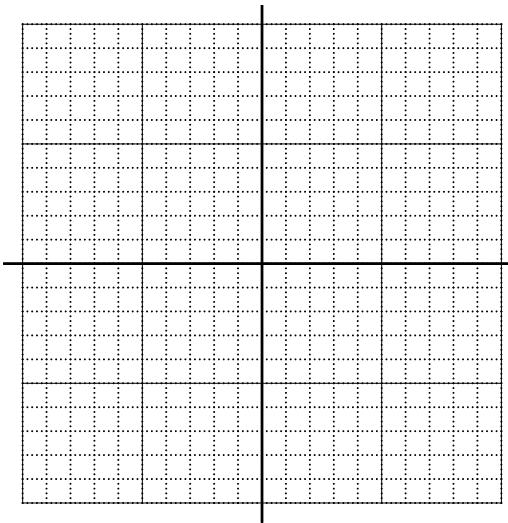
Graph each equation. Let the  $y$  axis be vertical and the  $x$  axis be horizontal. Also, let both axes be at unit scale, so each goes from  $-10$  to  $10$ .

Clearly mark every solution where  $x$  and  $y$  are both integers with a small dot along the curve.

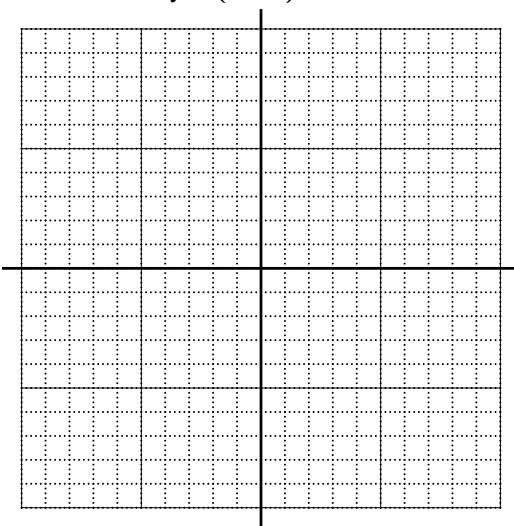
$$y = \sqrt[3]{x-5} - 3$$



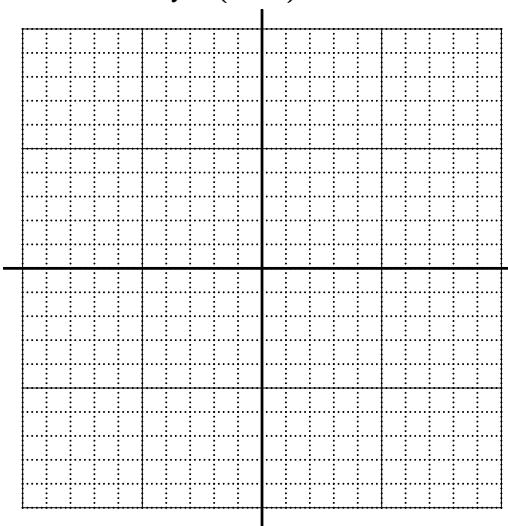
$$y = 2^{x-3} - 1$$



$$y = (x+2)^3 - 3$$

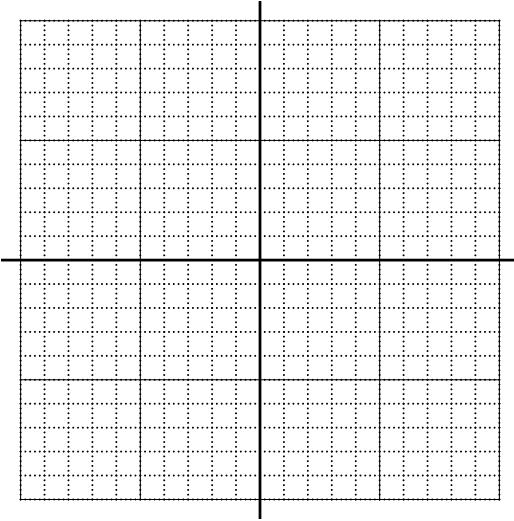


$$y = (x-5)^2 + 1$$

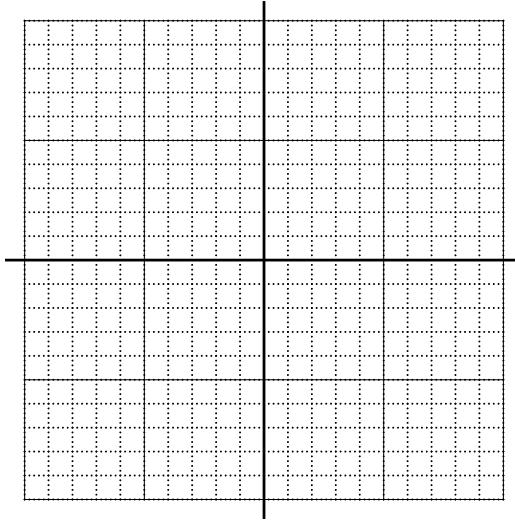


## PCW\_09\_29: Graph Parent Translations (version 20)

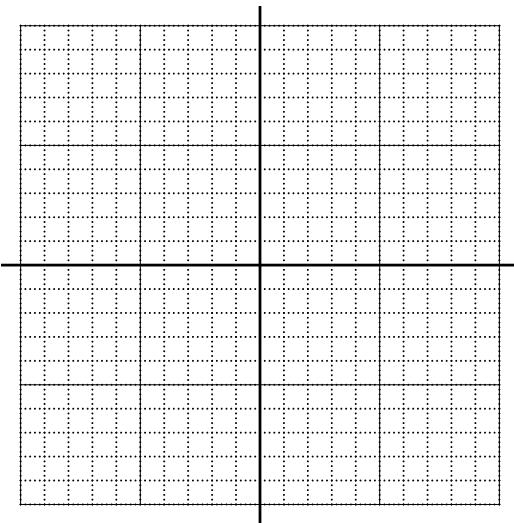
$$y = |x - 4| - 2$$



$$y = \sqrt{x - 5} + 2$$



$$y = \frac{1}{x - 5} + 2$$



$$y = \log_2(x - 5) - 4$$

